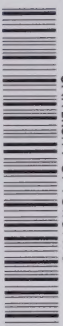


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B

*The Canadian Dental
Hygienists' Association
Revue
de l'Association Canadienne
des Hygienistes Dentaire*

PROBE

volume 20, no. 3

September 1986 septembre

HUMAN
RESOURCES

LEGISLATION

PORTABILITY

EDUCATION



MEMBERSHIP
ISSUE

For easier, faster
office work,
twice a year...

We help them
with their homework,
twice a day.



Introducing new Colgate Mint Toothpaste.
It not only reduces tooth decay, it helps inhibit
supragingival calculus buildup between prophylaxes.^{1,2}

Two important benefits in one new formula.

Colgate has developed a new cavity-fighting fluoride formula dentifrice which also contains a soluble pyrophosphate. This safe, non-abrasive ingredient interferes with the build-up of supragingival calculus. Clinical trials^{1,2} have shown a 35.5 % and 44.2 % reduction in calculus formation in patients tested. The practical results of such significant calculus reductions are obvious at subsequent appointments: easier prophylaxes for both you and your patients.

Colgate Mint Toothpaste is an important advance in oral hygiene for patients who require calculus removal.

Patients who develop hard, unsightly calculus will benefit from your recommendation to use Colgate Mint Toothpaste, in the gold box. They should begin to use it immediately following your scaling procedure, to enable the formula to work on freshly cleaned tooth surfaces. Of course those patients in whom calculus is not a problem will continue to benefit from regular use of Colgate's Regular, Winterfresh, or Gel flavours.



One more step to better oral hygiene for your patients.



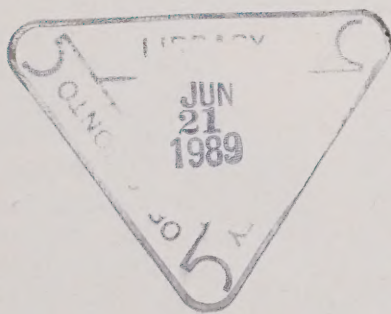
"Colgate Toothpaste contains sodium fluoride which is, in our opinion, an effective decay preventive agent, and is of significant value when used in a conscientiously applied program of oral hygiene and regular professional care." Canadian Dental Association.

1. Schiff, T.G.: "The effect on calculus deposits of a dentifrice containing soluble pyrophosphate and sodium fluoride: a three month clinical study." *J. Clin. Prev. Dent.*, (June, 1986).

2. Lobene, R.R.: "A clinical study of the anti-calculus effect of a dentifrice containing soluble pyrophosphate." *J. Clin. Prev. Dent.*, (June, 1986).

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PROBE

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PRESIDENT'S MESSAGE



Thank you for your confidence in my ability to guide the professional activities of our Association. With a historical perspective gained between 1973 and 1986, I will endeavour

to emanate the spirit of industrious teamwork that has been demonstrated by our dedicated leaders of the past. Together with the Directors and Executive Council, I will try to keep you informed on important issues while focusing on coordinating the affairs of C.D.H.A.

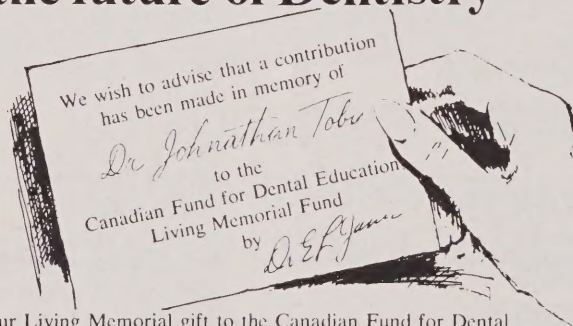
Nearly 2800 members strong, C.D.H.A. is dedicated to developing dental hygiene to meet the needs of dentistry's changing profile. National efforts are being directed towards increasing public awareness of dental hygiene services, strengthening the accreditation process, establishing national certification, developing a statistical base for manpower projections, promoting professionalism amongst students, improving information flow, providing benefits for members and most importantly improving the quality of dental hygiene care.

Every hygienist should read and reflect on the contents of the report of the Working Group on the Practice of Dental Hygiene which was published in the Spring, 1986 issue of the Canadian Dental Hygienist. The report is an excellent base of information on Dental Hygiene in Canada and poses questions worthy of your consideration.

I feel strongly that each of us has responsibility for proactive planning on both personal and professional levels, hence my commitment to serve as your president this year. Please help me to carry out the president's mandate by keeping me informed of your opinions and concerns. Only with your active involvement will the executive be able to address corporate needs of the members! ■

Dianne Gallagher
President, C.D.H.A.

With a CFDE Living Memorial you honour the memory of a friend colleague, or loved one...and serve the future of Dentistry



Your Living Memorial gift to the Canadian Fund for Dental Education becomes a lasting tribute to the memory of a friend, colleague or loved one. And you contribute to the future of Dentistry by supporting CFDE's efforts in behalf of dental education and dental care.

The family of the person you honour promptly receives a memorial card in your name. The name of the person you honour is permanently inscribed in the beautiful Book of Remembrance on display at CFDE headquarters.

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now ...**

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The most important addition to dental health care since the original Butler Proxabrush System. Dispense or recommend Butler aids with confidence. Available at better drug stores everywhere.

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To those of you who are members of the Canadian Dental Hygienists' Association and your provincial Asso-

ciation, you will realize that this is a special Membership issue of The Canadian Dental Hygienist designed to outline for you some of the advantages of Association membership

which you may participate in. Some of the benefits are highlighted to ensure that you are aware of them and are using them to your advantage.

To those of you who are not members of your professional Associations, we are sending you this particular issue in order to explain who we are and what we have to offer. Perhaps some of what you see on the next few pages will make you consider Association membership in a different light.

In this issue we recognize the officers of the C.D.H.A. who have volunteered their time and effort for the benefit of us all. Officers of provincial and local organizations will be noted in their own publications. We owe all these dental hygienists our thanks and co-operation.

Contained within the pages of this Journal is your 1987 Association membership form. We hope that you will complete and return it before October 31, 1986 so that we can count you in for the coming year.

Carol Worobey
Executive Director

Rebate Notice Malpractice Insurance

Due to the cancellation of the group malpractice insurance policy, the monies collected for the policy will be returned. All 1985/86 ACTIVE members are entitled to a \$10.00 credit against their 1986/87 membership fees. To receive this rebate, simply attach your address label from the front cover onto

the enclosed membership application. All 1985 ACTIVE members will be identified by an 'A' in the upper right hand corner of the label. If you were a 1985/86 active member, please deduct \$10.00 from your current fee payment.

Your 'Invitation to Join' is included in this issue. ■

LETTERS

To the Editor:

I am a strong believer in the associations, the benefits, but more importantly that we have a strong united association to protect our ideals in the dental profession.

I spend many hours with the students outlining the benefits and the need of a strong membership. The students all become members while at school and are encouraged to continue their membership

in order to keep informed as well as self protection through numbers, after graduation.

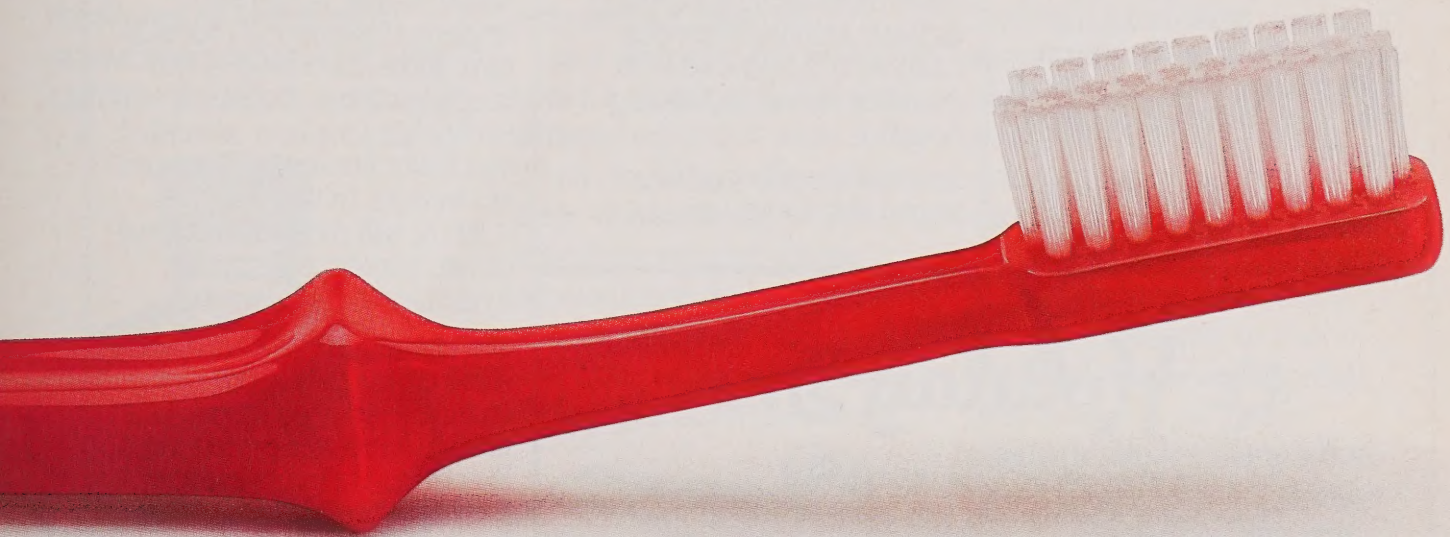
I wish membership was mandatory in order to be licenced. I personally resent paying the way for the free-loaders.

Yours truly:
Jack Sadler
Coordinator
Dental Hygiene
Algonquin College

PLEASE R.S.V.P.
to your
Invitation
to Join
by OCTOBER 31,

REACH^{*}

Nothing escapes it.



REACH^{*} cleans 51% better.

Clinical studies proved it. In tests against another leading brand, REACH^{*} cleaned 51% better.

Designed to fit the contours of your hand, the REACH^{*} handle is angled like a dental instrument in order to reach every nook and cranny.

REACH^{*} has two kinds of bristles. Longer ones get between teeth and gums to get rid of the bacteria that causes plaque and tooth decay. Shorter bristles are concentrated to really clean the entire surface of each tooth.

Keep your teeth. Start using REACH^{*}.



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Dianne Tivy, B.A.
Business Manager

During this time of membership renewal, I felt it was appropriate to discuss two of the major financial plans of the Canadian Dental Hygienists' Association. Making this commitment is an investment in your future. These are critical times in the evolution of dental hygiene.

The C.D.H.A. is taking the first steps towards the establish-

ment of a National Dental Hygiene Board Exam. This exam, in conjunction with national accreditation of dental hygiene schools, would greatly enhance portability. Portability has been identified as a major concern by our members. This is a long term project, with initial funds being allocated to facilitate meetings between C.D.H.A., C.D.A. and N.D.E.B. (National Dental Examining Board).

Statistics Canada has been responsible for maintaining a

national time series database on the dental hygiene profession. With current federal government restraints, this survey has been discontinued. It is our only source of reliable data about the dental hygiene labour force. The loss of this database would jeopardize future studies. As dental hygiene expands, it is crucial to have some knowledge of the supply patterns. A national survey has long been identified as a major priority by the Board of Directors. In 1987, the C.D.H.A. will conduct a national census survey of all dental hygienists in Canada.

The above survey will provide some critical data about changing supply patterns. In a female dominated profession, a deeper insight into the labour force could be instrumental in maintaining and enhancing the status of dental hygiene. Job satisfaction, working conditions, duties and family responsibilities are the building blocks of the census data, describing the actual supply of dental hygienists.

These projects are the beginning of an increased self-awareness for the dental hygiene profession. ■

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As a member of the Canadian Dental Hygienists' Association, you are entitled to "Club 500" rates at Holiday Inns across Canada

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10% off the single room rate published in the Holiday Inn Directory with no additional charge for spouse.

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The convenience of obtaining this rate at any Holiday Inn in Canada.

When making reservations, please be sure to request this special rate.

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*L'adhésion annuelle
à l'ACHD prend effet
le 31 octobre 1986.
Ne ratez pas cette...*

*Invitation
à rejoindre
les rangs*

Research confirms that using Listerine Antiseptic significantly reduces Gingivitis.

Controlled clinical studies conducted by independent researchers confirm that using Listerine Antiseptic twice a day

can significantly reduce and help prevent gingivitis.

In a clinical study conducted over a 6 month period, it was demonstrated that when using 20 mL for 30 seconds – twice daily – Listerine Antiseptic effectively reduced plaque accumulation and gingivitis as compared with vehicle and water control rinse scores.¹

And in studies that scored

plaque build-up following a thorough prophylaxis, it was shown that using 20 mL of Listerine Antiseptic twice a day, along with regular brushing, reduced plaque build-up 20-50% compared to brushing alone.^{2,3,4}

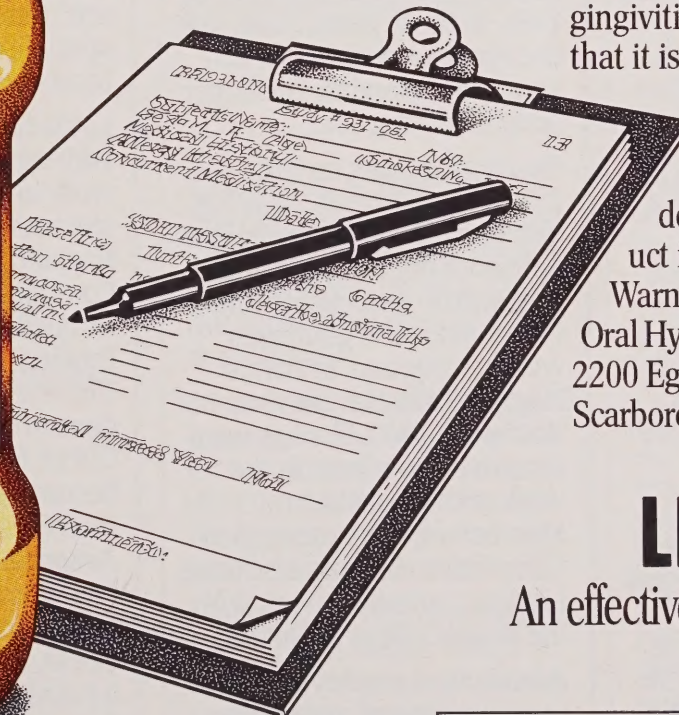
So, in addition to daily brushing and flossing, recommend Listerine Antiseptic to your patients for greater protection from plaque build-up and gingivitis. Studies demonstrate that it is an important adjunct to their current oral hygiene regimen.

To obtain clinical evidence or additional product information, write to:

Warner-Lambert Canada Inc.
Oral Hygiene Technical Services
2200 Eglinton Ave. E.
Scarborough, Ontario M1L 2N3

LISTERINE

An effective tool against plaque.



- References: 1. LAMSTER, I. et al.: Clin. Prev. Dent., 6:12 (1983).
2. MENAKER, L. et al.: Ala. J. Med. Sci., 16:71 (1979).
3. ROSS, N.M. et al.: Warner-Lambert research report #955-0875 (1976).
4. YANKELL, S.L., et al.: Warner-Lambert research report #955-0893 (1976).

Active ingredients: Alcohol 21.9% w/v, Eucalyptol 0.091% w/v, Thymol 0.063% w/v, Menthol 0.42% w/v.

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LET'S KEEP IT
Good For Life
CANADIAN DENTAL ASSOCIATION

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trademark of the Canadian Dental Association"

PROFILES



Kate MacDonald

Director of the School of Dental Hygiene at Dalhousie University from 1969 to 1982, Kate MacDonald is well known for her untiring work as a member of the Canadian Dental Hygienists' Association.

Born in Prince Edward Island, Kate studied at Forsythe School for Dental Hygiene in Boston. She then earned her Bachelor of Science in Health Education at Boston University and finally, in 1977 while holding down a full time job, Kate received her Masters degree in Continuing Education at Dalhousie University.

Since she first graduated as a dental hygienist, Kate has worked in Public Health and Private Practice as well as Education. She is currently teaching at Dalhousie University and working one day a week in private practice at the Stadacona Forces Bases in Halifax.

Kate is on CDHA's Education Committee and has also served as the Association's representative to CDA's Council on Education, Council on Health Care and Council on Accreditation. She has also travelled across this country as a member of the Accreditation Survey team for the Canadian Dental Association.



Ailsa Wood

Ailsa Wood, a CDHA Life Member, is probably best known as Treasurer/Bookkeeper of the Canadian Dental Hygienists' Association, a position she held from 1974 to 1985. In those years, Ailsa saw the Association grow from a small operation into the larger body it is today.

Besides her work on the Executive, however, Ailsa has also been active on Committees with both the Ontario Dental Hygienists' Association and CDHA since she graduated with her Diploma in Dental Hygiene from the University of Toronto in 1963. She has been an active participant in the work of the Legislation, Membership and Convention Committees. She has also done Liaison Committee work with the Royal College in Ontario.

Ailsa is now employed part time in a general practice in Toronto. Over the years, she has also been in periodontal practice and was a clinical demonstrator at the University of Toronto and Seneca College.



Linda Berry

Born in Etobicoke, Linda Berry graduated from the University of Toronto in 1965 with her Diploma in Dental Hygiene. Linda worked in orthodontics for 17 years and remembers that time as one of challenge where all her skills as a dental hygienist were brought into play. "There were many innovations in ortho," she says. "And there were many rewards, progress we could see." Since leaving this speciality, Linda has worked for six years in general practice.

Linda first became involved with association committee work in the late 1960's when she was on the ODHA Convention and then Membership Committees. She moved on through the ranks of the Provincial Association to be Vice President and then President. She was a Director of CDHA for seven years before becoming Vice President and then President of the National Association. After a year as Past President with CDHA, Linda moved on to Chair the CDHA Membership Committee a position which, she says, 'brings her 'full Circle' in her committee work in dental hygiene.

CFDE Donors Dental Hygienists 1985

(\$25.00 or more)

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Nepean, Ont.
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Vancouver, B.C.
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Regina, Sask.
Dimitri, M.J.
North Vancouver, B.C.
Falconer, C.
Toronto, Ont.
Feller, S.J.
Stonewall, Man.
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Halifax, N.S.
Gardner, W.J.
Vancouver, B.C.
Good, E.
Kitchener, Ont.
Grant, L.
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Kolthammer, M.A.
Kamloops, B.C.
Langevin, L.
Quebec, Que.
Larder, P.M.
Halifax, N.S.
Leggett, M.A.
Kamloops, B.C.
MacDonald, K.F.
Halifax, N.S.
Malkewich, A.
Ottawa, Ont.

McLachlan, M.E.
London, Ont.
Miller, M.E.
Winnipeg, Man.
Nagle, S.L.
Windsor, Ont.
Pelletier, M.A.
Moncton, N.B.
Shapiro, S.
Willowdale, Ont.
Stewart, V.L.
Val Caron, Ont.
Stevens, L.D.
Toronto, Ont.
Wailing, M.A.
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Weinberg, S.
Thornhill, Ont.
Wood, A.E.
Toronto, Ont.
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Vancouver, B.C.

Your envelope for your CFDE donation will be in the winter issue of this publication.

CFDE - It's Your Fund!

The Canadian Fund for Dental Education is controlled by the profession and its only objective is the promotion of good dental health.

Already the Fund has supplied more than two million dollars for a variety of programs that directly or indirectly benefit every member of the dental health team in Canada.

Money to provide this badly needed help comes from a number of sources - business and industry, organizations, foundations, bequests, investment income and, most important of all, personal contributions from members of the profession.

Trustees of the Canadian Fund for Dental Education (CFDE) approved a total of \$15,000 in grants for the following Dental Hygiene programs in 1986:

CDHA Continuing Education Conference 'Let's ALL Learn', Halifax, August 27-28.
CDHA Dental Educators' Workshop, Halifax, August. (This is the fourth consecutive year CFDE has provided funding for this workshop.)

Two Teacher Training Fellowships - Ms. Laura Lee McCormick, University of Manitoba, and Ms. Sheila M. O'Connor, Dalhousie University.

ODHA Educational projects underwritten by a corporate sponsor.

Further, Linda Berry, on behalf of the CDHA attended a portion of CFDE's 1986 Advisory Committee on Fellowship Selection meeting.

Quite naturally everyone interested in good dental health looks to those who provide the care and services for leadership, and this is why your personal contribution is most important to CFDE's ongoing success.

**OCTOBER IS CFDE MONTH!
IT'S YOUR OPPORTUNITY TO
HELP ENSURE A BRIGHT
FUTURE FOR YOUR
PROFESSION!**

Please forward your generous gift to CFDE today! All donations are tax deductible and gifts of \$25.00 or more are formally acknowledged in the Fund's Honour Roll of Contributors. ■

Dates to Remember

1986

- October ■ CFDE Month
- October 18 ■ QDHA/CDHA Leadership Workshop
Montreal, Contact: Christine Wooley
- October 31 ■ CDHA/Provincial 1986/87 Membership Renewal date

1987

- February ■ CDHA Membership receipts sent
- April 3-4 ■ CDA Interim Board of Governors - Ottawa
- May 24-28 ■ CDA/QDA/QDHA Annual Convention - Montreal
- June 4-6 ■ CDHA Annual Board of Directors Meeting
Ottawa
- Sept. 18-19 ■ CDA Annual Board of Governors
Ottawa

1988

- August 27-31 ■ CDHA/CDA Annual Convention -
Edmonton

1989

- June/July ■ International Symposium on Dental Hygiene
Ottawa

Group Rates for Home and Auto Insurance

One of the advantages of being part of an organization is to be able to use the strength of your numbers to purchase things at group rates. Such is true for the Canadian Dental Hygienists' Association when its members require home or auto insurance.

Traders General Insurance Company underwrite automobile and home insurance for our members with rates that are very competitive. They are a nationally recognized company who, as part of the Canadian General Insurance Group, represent one of the largest and most reliable insurance groups in the country.

A steadily increasing number of members are taking advantage of this membership benefit as the word gets around. In some instances, the cost of insurance can save a member enough to offset or even pay for their Association fees. Why not see what we can do for you.

To find out if it would be to your advantage to purchase Traders insurance, you may obtain a quote through Merit Insurance Brokers. Quote sheets are provided here for you to complete and submit to

Merit Insurance Brokers
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Willowdale, Ontario
M2H 2N8
416-497-5556

They will then inform you of what your rate would be. Be sure to send in your quote sheet at least 30 days prior to your insurance coming due.

Verification of your membership will be made before a policy will be issued.



TRADERS GENERAL INSURANCE COMPANY

REQUEST FOR AUTOMOBILE QUOTATION

PERSONAL INFORMATION (Please Print)

Name _____ Telephone — Home _____ Office _____

Address _____

City or Town _____

Present Insurer _____ Expiry Date of Coverage _____

Employer _____ Occupation _____

VEHICLE INFORMATION

Veh. No.	Year	Make	Model	No. of Cyl.	Serial No.	Driven to Work		Business Use	
						Yes/No	Miles 1 Way	Yes/No	Miles 1 Way
No. 1									
No. 2									
No. 3									

Lienholder _____ Address _____ Veh. No. _____

DRIVER INFORMATION (Including Yourself)

No.	Driver Name	Birth Date			Sex	Marital Status	Years Licensed	Drivers' License Numbers	Percentage of Mileage by Each Driver		
		M	D	Y					Veh. 1	Veh. 2	Veh. 3
No. 1											
No. 2											
No. 3											
No. 4											

Is any driver physically or mentally impaired? _____ If so, give name and details _____

If any driver has completed a driver training course, please enclose a copy of the certificate (drivers under 25 years of age).

DRIVING RECORDS (Note: Records are routinely confirmed with the Dept. of Motor Vehicles)

UNDISCLOSED TRAFFIC VIOLATIONS AND/OR CONVICTIONS MAY RESULT IN ADDITIONAL PREMIUM BEING CHARGED.

During the past 5 years has any driver . . .				Yes		No	If any question is answered "Yes" explain fully giving driver number, date, type of accident or conviction, reason and who was at fault.
1.	Been involved in an accident?			☐	☐		
2.	Been convicted of a traffic violation?			☐	☐		
3.	Had driver's license suspended?			☐	☐		
4.	Had auto insurance cancelled or refused?			☐	☐		
5.	Been convicted of impaired or careless driving?			☐	☐		

COVERAGE INFORMATION (Check Insurance Required)

Public Liability Property Damages		Accident Benefits		Collision			Comprehensive	
				\$100.00 Deductible	\$250.00 Deductible	Not Required	\$25.00 Deductible	Not Required
☐	200,000		Veh. 1	☐	☐	☐	☐	☐
☐	300,000		Veh. 2	☐	☐	☐	☐	☐
☐	500,000	Mandatory	Veh. 3	☐	☐	☐	☐	☐
☐	1,000,000							
☐ Loss of Use				☐ Underinsured motorist				

IMPORTANT

A CONSUMER REPORT CONTAINING PERSONAL CREDIT, FACTUAL OR INVESTIGATIVE INFORMATION ABOUT THE APPLICANT MAY BE SOUGHT IN CONNECTION WITH A REQUEST FOR INSURANCE OR ANY RENEWAL, EXTENSION OR VARIATION THEREOF.

WE CANNOT PROCESS YOUR QUOTATION UNLESS ALL INFORMATION IS SHOWN

THIS IS A REQUEST FOR A QUOTATION ONLY AND DOES NOT BIND COVERAGE NOR OBLIGATE YOU OR THE COMPANY



TRADERS GENERAL INSURANCE COMPANY

REQUEST FOR HOME PROTECTION QUOTATION

PERSONAL INFORMATION (Please Print)

Name _____ Telephone — Home _____ Office _____
Location _____
Mailing Address (if other than above) _____
Present Insurer _____ Expiry Date of Coverage _____
Employer _____ Occupation _____

PRINCIPAL RESIDENCE INFORMATION

Residence is ☐ Single Family Dwelling ☐ Condominium
☐ Apt. Bldg. with _____ units
☐ Other _____
Approx. Year of construction _____
Type of Construction ☐ frame ☐ Brick or Brick veneer
☐ fire resistive ☐ Other _____
Heated by ☐ Central Heat ☐ Other _____
Protection ☐ 1000' hydrant ☐ 5 miles of firehall ☐ unprotected
Name and address 1st _____
of mortgagees 2nd _____
Amount of insurance required — Bldg. _____
Contents _____ (if tenant or if amount exceeds 50% of Bldg.)

MINIMUM AMOUNT OF INSURANCE (BUILDING)

Ground floor area _____ x \$50 (per sq. ft.)
= _____ (minimum amount)

Add 50% for a storey = _____

Add 25% for split level = _____

THE ABOVE IS AN ESTIMATE ONLY AND CAN VARY
BY LOCATION, QUALITY OF CONSTRUCTION ETC.
TO OBTAIN ACCURATE REPLACEMENT COST,
OBTAIN A WRITTEN EVALUATION FROM A
QUALIFIED APPRAISER OR CONTRACTOR.

OPTIONS

SEASONAL OR SECONDARY RESIDENCE

TYPE (SEASONAL, RENTED, NO. of FAMILIES if rented) _____

LOCATION _____

CONSTRUCTION _____

MORTGAGEE (Name and address) _____

PROTECTION ☐ 1000' of hydrant ☐ 5 miles of firehall ☐ unprotected

Estimated Replacement Cost _____ Amount of Insurance req'd _____ Bldg. _____ Cont. _____

OUTBOARD BOATS AND MOTORS

Make	Length/H.P.	Model Year	Serial No.	Value
Boat _____	_____	_____	_____	_____
Boat _____	_____	_____	_____	_____
Motor _____	_____	_____	_____	_____
Motor _____	_____	_____	_____	_____
Trailer _____	_____	_____	_____	_____

ALL RISK COVERAGE ON SPECIAL VALUABLE POSSESSIONS (eg. Jewellery, Furs, Cameras, Silverware) *Appraisals required on items over \$1000*

Description	Value
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

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THIS IS A REQUEST FOR QUOTATION ONLY AND DOES NOT BIND COVERAGE OR OBLIGATE YOU OR THE COMPANY

Resource for the Elderly

The initial mailing of the "Oral Health Resource for the Elderly", is scheduled for March, 1987. The kit, a project of CDHA's Community Dental Health Committee, will go to all CDHA members and the National Advisory Group on Aging. This mailing will include a questionnaire for critical response.

The main promotion thrust for the Resource is scheduled for April, 1987 - National Dental Health Month.

Other health care and associated agencies will have been made aware of the availability of the Resource in January, 1987 and these groups, dental health organizations, community health agencies, professional associations and senior citizens' associations, will be asked to promote the Resource in their newsletters.

The goal is to distribute 50,000 copies of the Resource by the Fall of 1987.

St. Lucia Project Update

The Alberta Dental Hygienists' Association has initiated a dental health project on the island of St. Lucia in the West Indies (see CDHA Journal vol. 19, no. 3 page 91). The project was initiated to improve the dental health of the residents. Many Alberta hygienists had the opportunity to work for one month intervals in St. Lucia. Dental education and fluoride tablet programs will continue in schools and health centres which will be coordinated by a local nursing assistant who also received training in Alberta.

Support Membership

Is this a Membership Category for you?

We all recognize that, within our profession, there are a great many dental hygienists who, for one reason or another, are not currently employed in dental hygiene. For them, Active membership in our Association is not always reasonable. Also, there are individuals whom we come in contact with in our professional lives who are not dental hygienists but who are interested in what our Association is doing. For all these people, we have created a special membership category that will let them show their support for dental hygiene and continue to be informed. This category is called Support Membership. Those who subscribe receive all Association mailings. They do not have an opportunity to vote or hold elective office.

In 1986, the C.D.H.A. defined Support Membership to include dental hygienists who were not working in dental hygiene for the membership year. With this new definition, we say a % increase in the number of Support Members. If you are not going to be employed as a dental hygienist for the 1987 membership year (October 31/86 - October 31/87), why not consider this as a way of keeping in touch. The fee for Support Membership in your province is listed on the application form contained within this Journal.

International Dental Hygiene Federation

Pat Johnson and Jo Gardner, CDHA delegates, attended the triennial meeting of the International Liaison Committee on Dental Hygiene (ILC) on behalf of the CDHA. This meeting was held June 26-28, 1986 in Oslo, Norway, in conjunction with the 10th International Symposium on Dental Hygiene. Representatives of the other member national dental hygienists' Associations from Britain, Japan, Netherlands, Norway, Sweden and the United States were also present. Presiding officers were Wilma Motley as president and Jo Gardner as secretary-treasurer. CDHA President, Audrey Newcombe, was present as an observer.

The major outcomes of the sessions at the three-day meeting were: establishment of criteria for membership; adoption of rules and regulations for the proposed IDHF; development and adoption of a human rights policy statement; founding of the IDHF on June 28, 1986, with Canada signing the declaration as a founding member; election of Officers, President - Wilma Motley (USA), Vice President - Pat Johnson (Canada), Secretary-Treasurer - Jo Gardner (Canada); approval of three new members - Australia, Denmark, and Switzerland on June 28th during the first meeting of the IDHF. Total IDHF membership currently is ten national dental hygienists' associations; acceptance of CDHA's offer to both host the 11th International Symposium on Dental Hygiene, in Ottawa in 1989

ASAHP Research Network

The American Society of Allied Health Professions Research Committee announces a new service to assist in identifying ASAHP members involved in research. A list containing the name, address, topic and discipline of each of the 104 members who responded to a questionnaire distributed with the dues renewal notices, is available. The Research Committee is providing this list to encourage members to contact others with similar interests. One aim of this new service is to aid in the development of research networks among members investigating similar problems.

Contact:

Dr. Mary Lee Seibert
Dean, College of Allied Health Professions
Temple University
3307 N. Broad Street
Philadelphia, PA 19140

ADHA Licensure and Registration

Efforts of the ADHA have contributed to the long-awaited enactment of the first comprehensive legislation, in Alberta, governing the practice of dental hygiene. Regulations which outline the details of discipline, definition of practice, and requirements for registration and licensure will come into effect following the approval of the now active "Central Occupations Council". A unique legislative manifestation of the 'team' concept, this Council consists of two representatives each from the Alberta Dental Association, the

Alberta Dental Assistants Association, and the Alberta Dental Hygienists' Association. Alberta hygienists, dentists and assistants have a challenging and creative opportunity to be involved in the ongoing development of their legal professional environment.

Improved Renewal Date

As many of you noticed in 1986, the collection of fees for Association Membership was moved from December 31st to October 31st. There were three main reasons for making this change.

1. December is a financially heavy month

In the 1985 survey of non-members, many said that the year-end collection of fees came at a financially inconvenient time discouraging them from taking out membership. Our members have confirmed that expenses at this time of year are numerous enough without this additional fee. As well, most provinces have their licence renewal due in December which put the two major dental hygiene expenses all in the one month.

2. Not in line with the business year

Most local and provincial dental hygiene association meetings start up in the Fall. Membership renewal in the Fall ensures that members get to take full advantage of all that is offered to them during the business year. To wait until Convention time, either nationally or provincially, is not to take full advantage of the programmes offered and does

not give full value for your membership dollar.

3. A natural progression from Student Membership Introduction to our professional Associations began for most of us at the Student Membership level. Student membership is taken out at the beginning of the school year. Active Membership will now logically follow with renewals sent out in September.

The October 31st date was selected from several suggested. Response has been very favourable so this practice is to be continued in 1987. We hope that you will find this new renewal date to your personal advantage and that you will recognize this change as an effort on our part to respond to your suggestions.

Disability Insurance

Since 1970, The Canadian Dental Hygienists' Association has had special disability insurance coverage through Mutual of Omaha. This plan has provided good coverage at reasonable group rates. The benefits are monitored continuously and more improvements are expected in 1987. To date, approximately 700 CDHA members have coverage in force illustrating the wide use of this benefit by our members.

To obtain coverage you must be a member of the CDHA. Contact your nearest Mutual of Omaha office to arrange for a local representative to meet with you and go over the various features of our plan and determine the coverage appropriate for you. ■



The Canadian Dental
Hygienists Association
L'association Canadienne
des Hygienistes Dentaires

CODE OF ETHICS OF THE CANADIAN DENTAL HYGIENISTS' ASSOCIATION

Preamble

Ethics deals with the ideal of human character and the moral duties and obligations of the individuals as they bear upon human relationships of one person to another. In setting out the ethical rules and laws of the profession of dental hygiene, we have a Code of Ethics. This Code of Ethics is a broad statement of principles dealing with the moral duties and obligations of dental hygienists towards their patients, professional colleagues and to society. The Code of Ethics does not serve as a final set of regulations to meet all eventualities. Final judgement must come from what is excellence as it pertains to practice and conduct and the ability to know what is right and proper and the willingness to follow such a course. All members of the dental hygiene profession should re-examine their attitudes and actions frequently so that they may continue to enjoy the support and confidence of those whom it is their privileged to serve.

General Conduct Prevailing Rules and Regulations

Any member of this association rendering services to the public and patient must do so in accordance with the prevailing rules and regulations governing the practice of dental hygiene in the area in which they are providing such services.

Therefore it is the obligation of the practicing dental hygienists to acquaint themselves with the current regulations regarding the practice of dental hygiene in the area in which they are providing services.

Obligations

1. Integrity of the Profession

Dental hygienists have an obligation to maintain the honour and integrity of the profession and so conduct themselves in all things as to bring credit to themselves, colleagues and the profession.

2. Community Service

Dental hygienists have a responsibility to society as well as to the individual. Dental hygienists should provide freely of their skills, knowledge and experience to society in those fields in which their qualifications entitle them to speak with professional competence. Dental hygienists should be active in and available to their community, especially in all efforts leading to the improvement of the dental health of the public.

3. Professional Organization

Dental hygienists should support to the best of their ability the profession of dental hygiene and its advancements through the professional organization.

4. Service

The dental hygienists' primary duty of serving the public is discharged by giving the highest type of service of which they are capable.

Dental hygienists have an obligation to protect the health of their patients by not taking upon themselves any service or operation in which they are not technically competent even though the delivery of these

services by the dental hygienists may be provided for in the prevailing legislation.

5. Education

The right of dental hygienists to professional status rests in the knowledge, skill and experience with which they serve their patients and society. Dental hygienists have the obligation to keep their skills freshened by continuing education throughout their professional life.

6. Prevention

Dental hygienists have an obligation to inform and educate patients within their scope of service. In service to the patient, they have a responsibility to advance dental health education and preventive measures for the patient and public.

7. Consultation and Referral

Dental hygienists have an obligation of referring for consultation and diagnosis to the dentist all patients whose welfare should be safeguarded or advanced by having recourse to those who have special skills, knowledge and experience.

8. Confidentiality

Dental hygienists have an obligation to honor all confidences that may be learned in rendering service to the patient.

Professional Conduct

1. Criticism

Dental hygienists have an obligation of not commenting disparagingly on the services of another dental

hygienist or dentist to a patient or the public, but have the obligation to direct well founded criticism to the appropriate professional body.

2. Advertising

(a) Dental hygienist should have the obligation of advancing their reputation as competent health professionals through their service to the patient and society. The use of advertising in any form to solicit patients is inconsistent with this obligation.

(b) The use of signs, announcements, letter-heads and any other forms of advertising considered proper and in the best interest of the public and profession are currently prescribed by Federal and/or Provincial Legislation and the dental hygienists should conduct themselves accordingly.

MEMBERSHIP CLASSIFICATIONS

A. Active. Active membership may be granted to any person who is legally eligible to practice dental hygiene in any of the provinces of Canada and who will support and promote the objectives of the association.

B. Life. Life membership may be granted to an active member who has made an outstanding contribution to dental hygiene and to this association. Such individuals shall be approved by the board of directors.

C. Student. Student membership may be granted to any student enrolled full time in a dental hygiene program, or to a graduate dental hygienist who is enrolled full time in either a college or university program, and who will support and promote the objectives of the association.

D. Associate. Associate membership may be granted to a dental hygienist who resides in North West Territories, Yukon Territories or outside of Canada, and who will support and promote the objectives of the association.

E. Honorary. Honorary membership may be conferred upon individuals who are not dental hygienists but who have substantially contributed to the profession of dental hygiene. Such individuals shall be approved by the board of directors.

F. Support membership may be granted in individuals who

are not dental hygienists, or dental hygienists who are not working as dental hygienists for the membership year, who support and promote the objectives of the Association.

Support membership is not available to dental hygienists who fall into any other membership category.

Support members may not serve as Directors, Committee Chairpersons, representatives or appointive officers of the Association.

If you wish to maintain or apply for ASSOCIATE MEMBERSHIP in another province of residency, please indicate the provincial ASSOCIATE membership on the application form. Send the additional appropriate fees along with the form and ACTIVE MEMBERSHIP fees. The province will be notified and receive your payment Receipt forms are printed by computer once a year - in late February.

CDHA BENEFITS PACKAGE

Publications

- quarterly scientific journal
- provincial and local society newsletters
- publications on careers, current trends in Legislation, Licensure and Practice

Education

- annual scientific session and National Convention
- provincial scientific sessions and meetings
- association workshops
- national Continuing Education Day

- support of dental hygiene education through CFDE

Liaisons

- representation in matters of professional concern and interest
- liaison with government, dental profession and other related groups
- international liaison with other dental hygienists

Insurance

- insurance programs designed specifically for hygienists
- CDHA Insurance Consultant, Ron Berry, who is not affiliated with any insurance companies offering plans to hygienists, will assist with information, agents and problems c/o Merit Insurance Brokers, 5400 Yonge St., Suite 201, Willowdale, Ont. M2N 6G1. (416) 497-3555

Services

- placement services
- manpower surveys and reports (Stats Canada)
- portability information
- information Centre and Data Bank
- monitoring trends in dental hygiene
- provides hygienists with a unified voice
- personal contact with fellow professionals to exchange knowledge
- membership fees are tax deductible
- CDHA Central Office to answer members' needs, 1320 Carling Ave., Ottawa, Ont., K1Z 7K9. (613) 728-8730

NOTE: Only members will receive any convention promotional materials.

*FEEES ARE PAYABLE ON OR BEFORE
OCTOBER 31, 1986*

FEE SCHEDULE

PROV.	ACTIVE	SUPPORT	STUDENT
ALTA	\$110.00	\$40.00	\$40.00
SASK.	125.00	45.00	40.00
NFLD.	85.00	30.00	25.00
ONT.	135.00	50.00	45.00
P.E.I.	85.00	25.00	25.00
MAN.	85.00	29.00	27.00
B.C.	116.00	40.00	30.00
N.B.	85.00	30.00	25.00
N.S.	100.00	25.00	25.00
C.D.H.A. only for out of country or Quebec	\$ 65.00	\$25.00	\$25.00

NOTES:

- *Saskatchewan residents remit fees in January with their provincial licence fee.*
- *These are combined fees for provincial associations and C.D.H.A.*
- *Associate memberships are for out of province residents to join the provincial association*

ASSOCIATE

MEMBERSHIP FEES:

B.C. - \$15 Ontario - \$25
Alberta - \$15 Quebec - \$10
Sask. - \$20 N.B. - \$5
CDHA - \$25

FACTS ABOUT DENTAL HYGIENE

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professional member of the
dental team*

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- INDIVIDUALS
- SCHOOLS
- DENTAL HEALTH MONTH

PRICES

\$4.00 for 50 sheets
\$7.00 for 100 sheets
\$50.00 for 1,000 sheets





British Columbia

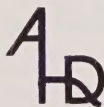
Jo Gardner
Executive Secretary
P.O. Box 151
Maderia Park, B.C.
VON 2H0

Saskatchewan Dental Hygienists' Association

Notice to Saskatchewan Hygienists

Remember that your C.D.H.A. fees are payable at the time of your licence renewal in January 1987

Quebec



DID YOU KNOW? that QDHA has changed its membership renewal date to coincide with CDHA's. This brings the renewal of your present membership to November 1, 1986, at the cost of \$33.50. Joint membership may be

available at a lower cost for the 1987-88 year.

You may be wondering what QDHA has been doing this past year. Many activities have kept all our committees busy. One example of this is the very successful publicity campaign for dental hygiene which was carried out by dental hygiene students in 90 Jean Coutu Pharmacies across the province of Québec. This was organized by the community health committee and took place during the month of April, Dental Health Month.

This fall CDHA and QDHA will be presenting two workshops at the Jewish General Hospital in Montréal on October 18, 1986 from 9:00 A.M. until 4:00 P.M. The French speaking conference is to be decided, while the English conference will be given by Dianne Gallagher, vice-president of CDHA, the subject being leadership

development. QDHA and CDHA encourage you to attend this conference to find out what our organizations can offer you.

If you are interested in joining either CDHA or QDHA please contact the QDHA office at the above address or telephone: (514) 277-1983.



THE ONTARIO DENTAL HYGIENISTS' ASSOCIATION

Ontario

We are in the business of serving the dental hygienists of Ontario

Put your name on our card.
Join the O.D.H.A.

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City: _____

Province: _____

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100 Sheets @ \$4.00 _____

1,000 Sheets @ \$25.00 _____

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to appear on the card: _____

100 cards

@ \$20.00 _____

250 cards

@ \$15.00 _____

FACTS SHEETS

50 Sheets @ \$4.00 _____

100 Sheets @ \$7.00 _____

1,000 Sheets @ \$50.00 _____

Total

enclosed \$ _____

PLEASE ENCLOSE CHEQUE OR MONEY ORDER

Prince Edward Island Dental Hygienists Association

As members of the Dental Hygiene Association of Prince Edward Island, we are fortunate to belong to a small and intimate group. New hygienists are warmly greeted and welcomed into this group. Our meetings usually take place every six weeks and each hygienist takes her turn as hostess thus creating an informal and relaxed atmosphere. These meetings may be very active (ie: setting up fund raising events) or they may be informative as we sometimes have guest speakers. Continuing education courses are offered usually once a year and are separate from our regular meetings. At times when activities are low our meetings are simply a special social event. About twice a year we have supper meetings. These are held at various restaurants; having the meeting follow a usually excellent meal. It is important to meet as a group of dental professionals to discuss various new innovations in the dental field. Whether it's new materials, instruments or techniques, it is definitely beneficial to share our opinions.

As members of the P.E.I.D.H.A. we have much to share and offer. We look forward to seeing new members in the upcoming year.



The Manitoba Dental Hygienists' Association wants you

As a member you

- receive Montage, the MDHA newsletter
- receive first hand information of general meetings
- can participate in continuing education seminars
- have a liaison with fellow professional associations
- enjoy planned social functions
- have the opportunity to serve on the Executive of the MDHA

The Nova Scotia Dental Hygienists Association

Look forward to serving all the dental hygienists of Nova Scotia through

- a strong voice for the Association in dealing with matters that effect legislation and, consequently, future *dental hygiene practice* in the province
- programs that contribute to personal and professional growth continuing education scientific presentations and conventions a provincial newsletter
- social programs on the provincial and local level

Directory of Membership Contacts

For further information about Provincial Associations contact your provincial membership representative through:

CDHA

1320 Carling Ave
Ottawa, Ontario
K1Z 7K9

Saskatchewan: Mary Anne Wailing

Manitoba: Pamela Simpson

Ontario: Trudy Hebbes

Quebec:
Christine Wooley

Prince Edward Island:

Debbie Richard

Newfoundland:

Linda Roberts

Nova

Scotia:

Caroline

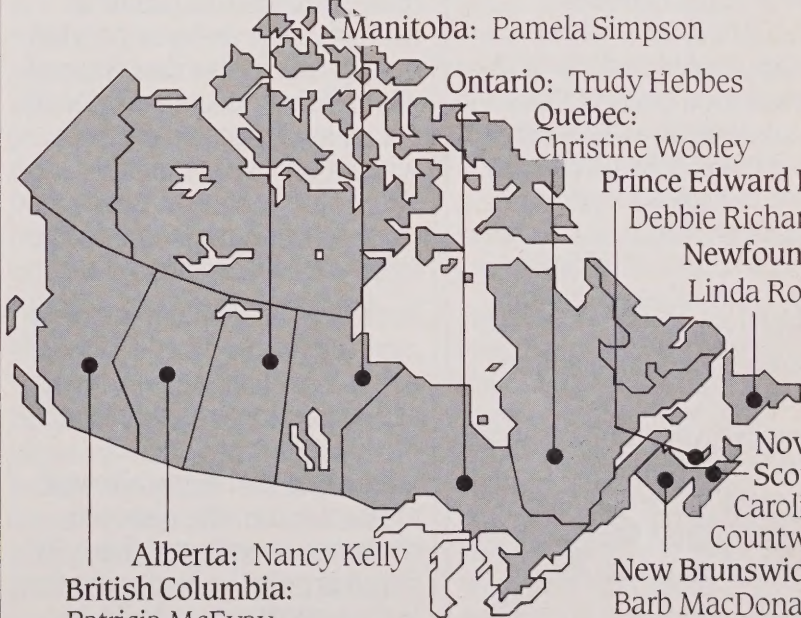
Countway

New Brunswick:
Barb MacDonald

Alberta: Nancy Kelly

British Columbia:

Patricia McEvay



Challenge of the '80s

Linda Berry
Membership

When the Board of Directors of the Canadian Dental Hygienists' Association met in Toronto in May 1982, they adopted as their theme "Challenge of the 80's". This theme was to guide our thoughts for the middle years of the decade. What did we mean by this slogan? Did it refer to all of us as members of the Association? Did it mean we as practitioners of the art and science of dental hygiene? Did it mean each of us as individuals? Like any catch phrase, I guess we can read into "Challenge of the 80's" what we wish. Let's look at some of the different concepts that the phrase could apply to.

To all those who volunteer their time and energy to the running of a dental hygiene organization, be it at the national, provincial or local level, this challenge could be taken from an Association point of view. They can look at such things as

- safeguarding the profession in terms of legislation, education, manpower etc.
- being a source of information for continuing education of dental hygienists
- promoting dental health to the community
- encouraging communication with colleagues and other members of the dental team
- providing interesting and appropriate programs for members

They will have taken the "challenge" and responded to it to the best of their ability. The rewards for accepting such a challenge are in the experience gained, the people met along the way and the pride in successfully completing the task at hand. We applaud those who have taken this type of challenge. To those who have never played an active role in your Association, there is always a job to be done in whatever area is of particular interest to you. We offer this "challenge" to you.

For the profession of dental hygiene, we have seen new challenges develop since 1982. We have identified various segments of the population whose dental needs are not being adequately met and have tried to develop ways of having dental hygienists play a more active role in providing needed services. We have seen patterns in the supply and demand for dental hygienists take some surprising turns. We have seen a need to instill in each of us the desire to provide quality care and to find ways of maintaining competency for all dental hygienists no matter where they live in Canada. There are even new health concerns which have loomed large for us in these last few years.

Each of us as dental hygienists have already faced and passed two major challenges ie. being accepted into dental hygiene in the first place and then graduating and being allowed to practice. But the personal challenge doesn't end there. In fact, it is only the beginning. It is then necessary to build on

our solid base to be the best we can be.

Being the best we can be can take on several different aspects. Naturally it includes our clinical skills which should have each of us treating our patients as we would expect to be treated ourselves. Our interpersonal relationships should put us at ease with our fellow workers and the patients we serve. Our communication skills should let us carry the message of dental health and personal well-being to those in need. Our desire to learn should see us continuing to broaden our education, especially in areas of particular interest to us.

Think of some of your colleagues in dental hygiene. How well have they done in meeting the "Challenge of the 80's"? Think of your Associations. Are they changing with the times and meeting the issues head on? Think about yourself. Are you faced with challenges? Are you needing help in dealing with your challenges? Are you seeking new challenges? ■

SAYING "NO" ASSERTIVELY

Sheryl J. Feller *R.D.H., M.B.A., C.M.C.*
Management Consultant
SJB Management Consultants

Paula S. McDonald *B.A., PreMED*
Counsellor
University of Manitoba
Counselling Service

Dental Hygienists, like many people, are frequently faced with situations where behaving assertively would be in their own best interest, as well as in the best interest of others. Situations in which an assertive "no" would be appropriate are numerous. Some specific situations include: being asked to perform a service or in a manner which you believe is unethical; being asked to see a patient in two units of time when three are required; being approached by a co-worker who has complaints or gossip about another team member, and; being asked to take on an interesting volunteer job when you already are involved (or over-involved) with other volunteer commitments.

Other general types of situations requiring assertiveness involve: disagreeing, giving

positive or negative feedback, and responding to criticism.¹

Assertive behaviour defined

Assertive behaviour differs greatly from both non-assertive and aggressive behaviour in that it does not cause undue personal anxiety or deprecate others.² Assertive behaviour involves openness, directness, honesty and appropriateness.³ It is "standing up for personal rights and expressing thoughts, feeling and beliefs in ways which do not violate another person's rights".⁴ It involves respect for yourself (your needs and your rights) as well as respect for another person's needs and rights. True assertive behaviour, therefore, demonstrates respect for the opinions, beliefs, feelings, and rights of all people, including your own.

To determine if you have behaved assertively in a given situation, ask yourself: "Did my behaviour in this circumstance improve, decrease or have no effect on my self-esteem?". If the behaviour improved or had no effect on your self-esteem,

then you were appropriately assertive. If, however, your response decreased your self-esteem, then you were not appropriately assertive.⁵ Assertive interaction should leave you feeling good about yourself.

Non-assertion shows a lack of respect for your own needs. Thoughts and feelings are expressed in apologetic, self-effacing or diffident ways. The non-assertive message frequently says "I don't count - you can take advantage of me. My feelings don't matter - only yours do. My thoughts aren't important - yours are the only ones worth listening to. I'm nothing - you are superior".⁴ Non-assertive statements are frequently accompanied by poor posture, a weak or hesitant voice, and minimal eye contact.

Aggressive behaviour involves controlling others or getting your own way at the expense of others. The aggressive person is usually interested in "winning" and overpowering others. While non-assertion shows a lack of respect for your own needs and rights, aggression communicates dis-

respect for others' needs and rights. Aggressive statements are usually made in loud and abrupt ways.

Beliefs about rights and responsibilities determine assertive, aggressive or non-assertive behaviour. The assertive person tends to believe that all people "regardless of role, status or title possess the same basic fundamental rights and responsibilities."² Aggressive people tend to believe they have *more* rights but *fewer* responsibilities than others and they generally expect more of others than they would be willing to give themselves. In contrast, non-assertive people tend to believe they have *fewer* rights but *more* responsibilities than others, and they generally expect more of themselves than others.⁴ Holding beliefs that are congruent with the principles of assertiveness will facilitate behaving in an assertive way.

Saying "No" – When and How

There are many situations that are best handled in assertive ways. Saying "no" when you mean "no" is difficult for many dental team members.² Saying "no" when you mean "no" will allow you to avoid situations which you would later regret and to avoid situations in which you feel abused. An assertive "no" is often met with understanding and sometimes even relief by others.

In saying "no", you must attempt to do so clearly, honestly and directly. Morton, Richey and Kellet (1981) suggest a "no" formula:²

*"No, I've decided not to _____
Doing that would _____
(Optional) However, I would be
willing to _____"*

Examples of using this formula in the situations presented earlier include:

"No, I've decided not to merely use cold sterilization for my instruments. Doing that would violate my standards for maintaining asepsis."

"No, I will not see Mrs. Brown between 1:30 and 2:00. Doing that would mean that she would not receive a thorough or complete scaling and that I would have to keep Mr. Green waiting. However, I would be willing to have her come in at 4:00 as the last appointment of the day."

"No, stop right now. I've decided not to listen to any more complaints about Jane. Talking behind her back will not solve the problem and just drags us all down. I would be willing to help you two develop the schedule that seems to be at the heart of these problems."

"No, I've decided not to chair that committee. Doing that would put me into an "overload" situation and I must do justice to my other commitments."

Even if you handle "no" in an assertive way, others may respond negatively or continue to pressure you. In these situations, several strategies are suggested.⁴ You can reflect back to the aggressor what she/he has asked you to do and restate the assertive "no".

"I-language assertion² is also effective:

*I know you would like me to _____ and no,
I've decided _____.*

You can also point out the implicit assumptions about rights and responsibilities that are present in the aggressor's request. This may help the aggressor become more objective about the request.

If, however, after several assertive attempts, you have not been able to achieve a desirable outcome, then you have to decide whether to follow through by sticking to your "no" and its negative repercussions, or to give up the "no". Whether you decide to follow through or to give up on the "no", you must realize that you have made this choice and therefore are responsible for the outcome.

It is important to recognize that not all situations requiring assertiveness must be handled assertively immediately. Some situations are so complicated, so important, or so risky that you must decide whether *now* is the time to assert yourself. "If you decide that it is not in your best interest to assert yourself now in the face of unpleasant consequences, then it will be necessary for you to find ways to cope with the situation."² In work situations, this may mean starting the search for a new job. You must always assess situations carefully in order to decide whether asserting yourself is "right", right now.

Conclusion

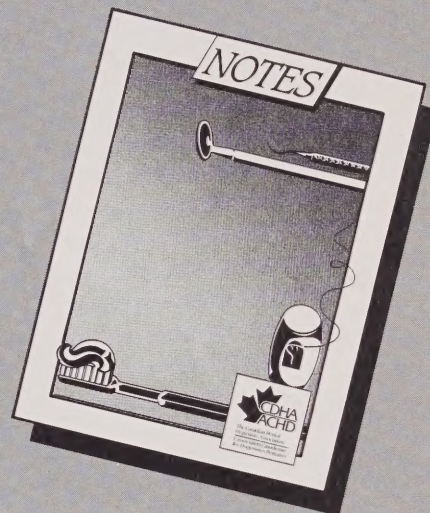
Learning to say "no" assertively can have profound consequences. By showing others that you value your own feelings and wishes, you will lead them to respect you more. In turn, this will lead to more positive experiences and fewer regrets both professionally and personally. ■

References

1. Morton, J., *Assertion Training: One Approach to Interpersonal Skill Training in Dentistry*. *Journal of Dental Education* 47: 102-104, 1983.
2. Morton, J., et al *Building Assertive Skills: A Practical Guide to Professional Development for Allied Dental Health Providers*. The C.V. Mosby Co., Toronto, 1981: 22, 115-116, 193.
3. Fensterheim, J. and J. Baer. *Don't Say Yes When You Want to Say No*. The Dell Publishing Co., New York, 1975.
4. Lange, A. and P. Jakubowski. *Responsible Assertive Behaviour: Cognitive/Behavioral Procedures for Trainees*. Research Press, Illinois, 1976: 7-9.
5. Pietrofesa, J., et al *Counselling - An Introduction (Second Edition)*. The Houghton Mifflin Company, Boston, 1984.

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PRICES

\$2.00 for 50 sheets
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THE ONTARIO DENTAL HYGIENISTS' ASSOCIATION SPECIAL MESSAGE

The Government of Ontario has issued a challenge to the health care professions to demonstrate that they can regulate their professions in a fair and effective manner which puts the public interest first.

The Issue:
Responsible, Representative Regulation of dental hygienists by dental hygienists to insure

effective delivery of dental hygiene care to the public.

The problem:
Dental hygienists have no voting representation in the regulation of their profession i.e. supervision

The solution:
Active involvement in the legislative process to determine the future regulation of dental hygiene.

SUPPORT RRR FOR RESPONSIBLE REPRESENTATIVE REGULATION

Support your profession through your
Financial Contribution

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Make your cheque payable to

RRR FUND

c/o ODHA

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OCCUPATIONAL HEALTH HAZARDS FOR DENTAL HYGIENISTS

Marilyn Armstrong *SDT, RDH*

Marilyn Armstrong was a dental therapist in Saskatchewan before she attended Wascana Institute. She graduated with a

Diploma in Dental Hygiene in 1986. She is now in private practice in Calgary.

Abstract

Dental personnel work in environments which expose them to many and varied occupational health hazards. Several of the hazards which can be directly related to the work of the dental hygienist are: lower back pain, carpal tunnel syndrome, Hepatitis B, Acquired Immune Deficiency Syndrome, Herpes Simplex Virus. Lower back pain can be prevented by the utilization of good postural habits and relieved by frequent position changes. Stretching, flexing and the careful selection of recreational activities may also serve to relieve pain and tension. Carpal tunnel syndrome, with its related numbness in the fingers and nocturnal pain can initially be suspected by the dental

hygienist through the use of various movement tests. Steroid injections or surgery may be indicated for treatment. Due to our high exposure profile, preventive measures should be routinely carried out to prevent the contracting of infectious diseases such as Hepatitis B or AIDS. Vaccinations against Hepatitis B are a recommended safeguard along with routine use of gloves, masks and protective glasses. More stringent measures are emphasized when treating suspected Hepatitis B or AIDS patients. Although Herpes Simplex Virus is not such a serious hazard, direct contact of lesions may lead to Herpetic Whitlow or Ocular Keratitis. Both infections may debilitate operators and temporarily prevent them from practising.

Literature throughout the past decade has emphasized to dental personnel the potential hazards present in the form of chemical, environmental and biological agents found in the dental office. Each one of us is responsible for protecting ourselves against occupational hazards.

For the purpose of this article the following hazards have been chosen for discussion; musculo-skeletal disorders, such as lower back pain and carpal tunnel syndrome; Hepatitis B; Acquired Immune Deficiency Syndrome (AIDS) and Herpes Simplex Virus. The symptoms, causes and treatment will be described as well as methods of prevention.

For analytical purposes, the exposure risk of dental hygienists have been compared with that of the dentist in the office.

Musculo-Skeletal Disorders

A Lower Back Pain

Back strain and muscle fatigue amongst hygienists can be

directly related to the postural demands of our work. Dental hygienists sit for prolonged periods with very little muscular movement except when scaling. This results in considerable strain placed on the muscular system and spinal column.

1. Causes

"The low back is the Achilles heel of your spine, and so at least nine out of ten back problems arise here... they are the workhorses of the spinal column. When you straighten up from a bent-over position, this area acts as a fulcrum."¹

C. Norris suggested that one out of every two practicing dentists have back problems related to their occupation.²

2. Preventive Measures

Experts suggest we can reduce muscle fatigue by; (a) maintaining healthy working positions when seated (Fig. 1).

(b) changing these positions frequently.

Also standing up and moving around the office several times a day helps maintain mobility of the joints.

By keeping the body in the seated position erect and relaxed, the intervertebral spaces along the spine can be lengthened, reducing disc pressure and pain. By frequently varying these positions, body support can be shared amongst various muscle groups.

While we are seated or moving around we can intentionally flex our fingers, stretch our arms, shrug our shoulders and deep breathe to relieve tension and stress. Dr. D. Shugar,

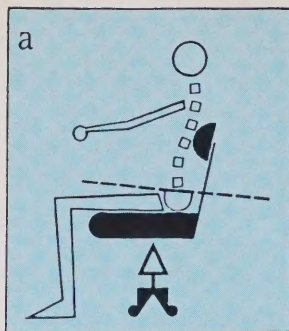
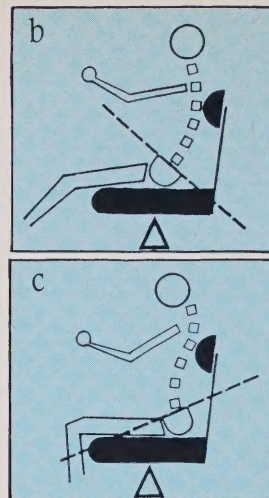


Fig. 1.
a) Correct sitting position.
b) and c) Incorrect sitting positions.



Associate Professor of Operative Dentistry, University of Northern Carolina Dental School, has designed a series of exercises to provide relief and help prevent back pain for dental personnel.² A sample of these exercises can be seen in Fig. 2.

Correct posture can be assisted by fully utilizing the operator's stool. Dr. N. Harris, an ergonomics expert, recommends that the seat of the stool be adjusted to a height suitable for each operator, permitting the thighs to be parallel to the floor or the knees slightly higher than the thighs while the feet remain flat on the floor. (Goldman³) Constant support should be provided by a firm stool back placed approximately eight inches above the seat; its exact location dependent upon the anatomy of the operator.

In our haste to find tension relief through recreational activities we may be worsening our back condition. In fact, we should realize that many sports aggravate lower back problems. Dr. B. Finneson, President of the International Society for the Study of Lumbar Spine, warns that "jogging is

excellent - but only if your back is normal, because otherwise its stress will bring out any weakness".¹ Dr. Finneson recommends bicycling, swimming and rigorous walking for those with back problems, and the avoidance of bowling, golfing, jogging, horseback riding and weightlifting.¹

B. Carpal Tunnel Syndrome

"The carpal tunnel is a passage in the wrist through which important nerves (median nerve), blood vessels, and flexor tendons to the fingers and thumb pass from the forearm to the hand".⁴ Carpal tunnel syndrome is a "compression of the median nerve conduction. The syndrome can progress causing damage of the nerve fibres resulting in complete peripheral degeneration."⁴

The signs and symptoms of degeneration can be so subtle over a length of time that they often are ignored until it is too late.

1. Causes

Predisposing factors linked to this syndrome include chronic trauma, fractures of the wrist, oral contraceptives, hypothyroidism, rheumatic arthritis,



Fig. 2
A sample of
Dr. Shugar's exercises.

pregnancy, neo-plasms, diabetes mellitus and mercury poisoning.

An occupation origin aetiology involves continual repetitive flexation of the wrist, use of vibrating tools and poorly designed instruments.⁴

2. Symptoms

Symptoms can be manifested as; weakness, tingling, parathesis, sensation of swelling, pain in the thumb, index, middle and ring fingers and nocturnal pain. The pain can often radiate to elbow and shoulder as well.⁴

3. Preventive Measures

If some or all of these symptoms are experienced a specialist should be consulted. Various movement tests (Fig. 3) can give an indication of the seriousness of the problem and the need for urgent treatment.⁴

4. Treatment

At this time treatment consists of

i) Steroid injections with splinting when indicated. Sometimes splinting alone is effective in less severe cases.

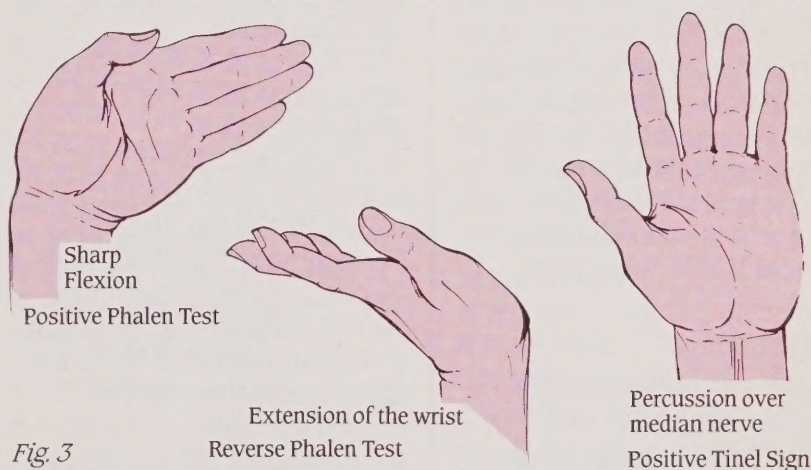


Fig. 3

ii) Surgery: consisting of longitudinal incision of the transverse carpal ligament, releasing pressure on the median nerve.

Following the recommended treatment, prevention of a recurrence may be to change jobs if shown to be occupationally related. Our comprehensive knowledge regarding this syndrome and recognition of its symptoms may lead to its early detection and thus avoidance of any need for such radical action.

Infectious Diseases

The nature of our employment places us in a vulnerable

position in regard to infectious diseases. It is important to emphasize the necessity of keeping abreast of preventative measures, experimental research and their results relating to such diseases as Hepatitis B, Acquired Immune Deficiency Syndrome and Herpes Simplex Virus, to name just a few.

A. Viral Hepatitis

Hepatitis, an inflammation of the liver, is present in three recognized forms; Type A or Infectious, Type B or Serum and Type C or non A - non B. Hepatitis A and Hepatitis B are

clinically indistinguishable but are caused by an immunologically distinct virus. (Goldman³)

1. Causes

Hepatitis B is of major concern to us because it is known to be transmitted amongst dental personnel. Transmission can be through contaminated saliva or blood, either by direct or indirect percutaneous inoculation by needle, or absorption through the mucous membranes of eyes, mouth or nose. Transfer can also result from exposure to contaminated environmental surfaces, where its contaminants are able to survive for days.

The American Dental Association Council on Dental Therapeutics suggest that the risk of contracting the Hepatitis B virus is three to five times greater for general dentists than for the population at large.²

2. Symptoms

Early symptoms of Hepatitis B are; easy fatigability and frequent headaches.

(Goldman³) Other symptoms are; anorexia, malaise, nausea, vomiting, abdominal pain, severe fatigue, depression, darkening of urine, liver tenderness, clay coloured stools and jaundice. Some infected individuals may suffer mild symptoms that are hardly noticeable. Less than ten percent of acute cases become chronic carriers of Hepatitis B. Unfortunately, the chronic carriers are found to be at a much greater risk of developing primary carcinoma of the liver. Many chronic carriers are unaware of their "carrier status" and consequently pose

the greatest threat to hygienists.

3. Preventative Measures

- i) Complete medical history of each patient, updated regularly.
- ii) Masks, gloves and protective eyewear for routine use.
- iii) Small abrasions and cuts on hands can be covered with a clear, liquid bandage under gloves (in case of accidental inoculation).
- iv) Maintenance of the highest level of sterility in the operatory at all times.
- v) Careful handling of sharp instruments and needles to avoid accidental penetration or self-inoculation.
- vi) Use of high power evacuation to prevent dispersal of micro-organisms.
- vii) Place any contaminated disposable items in a separate bag, mark the bag "Hepatitis Contaminated", sterilize, then dispose or directly incinerate.
- viii) Vaccination (eg. Heptavax B vaccine, marketed by Merck, Sharp and Dohme) at prescribed intervals.

For further information regarding precautions and procedures in the treatment of Hepatitis B carriers, chapter four of "Clinical Practice of the Dental Hygienist", 5th edition, by Esther Wilkins, is a good reference.

B. Acquired Immune Deficiency Syndrome

This affliction is referred to as a syndrome because it is diagnosed from an accumulation of signs and symptoms, rather than one specific test or sign. It is characterised by a severe loss of natural immunity resulting in a vulnerability to illness that otherwise would

pose no threat. Once immunity is lost it is never regained.⁵

1. Causes

"As this viral infection is known to travel through blood (in addition to blood products and semen) major concern has been generated among dental professionals whose work exposes them to this route of transmission."⁵ Although at this time there has been no known direct transmission of AIDS to health care providers, certain precautions are recommended.

2. Symptoms

Marked fatigue, persistent fevers or night sweats, weight loss unrelated to diet or activity, lymph node enlargement, discoloured nodules on the skin or mucous membranes (especially the mouth), persistent dry cough and diarrhoea are all symptoms of AIDS. The victim may develop severe herpes infections in the mouth and on the skin. Slightly more than one third of AIDS patients have Kaposi's sarcoma of the mouth, skin or lymphoid tissue with or without pneumonia. (Goldman⁵) Dental hygienists may be the first to see these patients prior to hospitalization so it is imperative that we maintain our awareness and "suspicions" regarding any oral signs and/or unexplained sudden weight loss of patients.

3. Preventative Measures

AIDS patients can be safely treated in a conventional dental office using the following recommended precautions.²

- i) Care should be taken to avoid direct contact with the skin and mucous membranes, blood products, excretions, secretions

and tissues of a patient likely to have the syndrome.

ii) The work area should be covered with disposable or autoclavable drapes.

iii) Masks, protective glasses, gowns and gloves should be worn throughout all procedures.

iv) Protective gowns should be removed immediately after treatment and placed in specially marked receptacles, prior to removing gloves.

Hands should be thoroughly washed after removing gloves.

v) After treatment the exposed work area should be disinfected with 1:10 dilution of 5.25% Sodium Hypochlorite solution.⁵

vi) After administering local anaesthetic, needles should not be bent, nor replaced in sheaths. Instead place in a rigid, puncture-resistant container solely for that purpose.

vii) All contaminated disposable items should be considered "infected waste", bagged and labelled as such.⁵

viii) Sterilization of instruments should be performed by gloved hygienists. Careful handling of explorers and scalers will lessen the possibility of accidental punctures with contaminated instruments.

ix) Disposable radiographic holders should be used and any exposed packets placed in sealable, marked plastic bags for transfer to the processing area.

Although we should not discriminate against these patients, sensible precautions are still necessary.

C. Herpes Simplex Virus

"This is one of the most common viruses infecting humans and is responsible for

a variety of clinical syndromes affecting skin, mucous membranes and nervous systems.

(Goldman³) Herpes Labialis is the most common form of Herpes Simplex Virus we will see; occurring as a painful inflammation of the lip(s). Vesicles develop then rupture to produce painful ulcers which will heal within ten to fourteen days. Care should be taken to avoid touching in infected area(s). Thus re-infection of other areas of the patients' face is avoided. Transmission of the Herpes Simplex Virus from patient to operator can result from an accidental cut or prick by a needle or instrument used on an infected patient, exposure to infected blood and tissue fluids or direct contact with an infected patient. Injured fingers or nails can increase susceptibility of operator. If the finger or nail becomes infected, Herpetic Whitlow is the result.

1. Symptoms

A burning sensation and tenderness in the infected finger will first appear after an incubation period of three to seven days. Then, vesicles will develop with noticeable swelling. Within two weeks the pain will abate, the lesion will crust and heal.

2. Treatment

The infected fingers should be isolated, movement limited and analgesics taken as required.

Care should also be taken by the hygienist to avoid placing a contaminated finger on their face or wipe an eye, as this may result in Ocular Keratitis:

a) Symptoms

Such contact could lead to

painful ulcers and visual impairment, which would temporarily prevent the operator from practicing. Recurrence of this condition may lead to "progressive scarring, opacification of the cornea and even permanent visual damage." (Goldman³)

b) Treatment

One the advice of an ophthalmologist antiviral agents topically applied are usually prescribed. (Goldman³)

c) Preventative measures for Herpetic Whitlow and Ocular Keratitis.

Preventive care is simple. Delay treatment of an infected patient until healing has occurred. If this is not possible, use masks, protective glasses and gloves while maintaining a high degree of sterility. Avoid direct contact of lesions.

Herpes Simplex Virus is more of an inconvenience than a serious hazard, but infectious transmission still should be avoided.

Conclusion

Several health risks directly related to the practise of dental hygiene have been discussed. Lower back pain, carpal tunnel syndrome, Hepatitis B, AIDS and Herpes Virus were considered to place the greatest risk to the operator. Awareness and concern should not be restricted to only those hazards mentioned, but should extend to all other potential hazards present as a result of the dental hygienists high exposure profile.

The operator's physical comfort can be enhanced by maintaining good posture while

operating as well as changing positions regularly with intermittent flexing and stretching. By recognizing the early signs of carpal tunnel syndrome the operator can seek early treatment so avoiding much pain and perhaps the necessity to change careers.

The routine wearing of gloves, masks and protective glasses; the maintenance of a high standard of instrument sterility and surgery disinfection; thorough medical histories and a healthy dose of suspicion (regarding unexplained weight loss, prolonged upper respiratory conditions, etc.) can

reduce the possibility of contracting various diseases due to our vulnerability as dental hygienists.

The responsibility lies with each dental hygienist to protect themselves against occupational hazards as much as possible. The up-dating of their knowledge regarding hazards and preventive measures is up to the individual.

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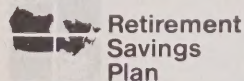
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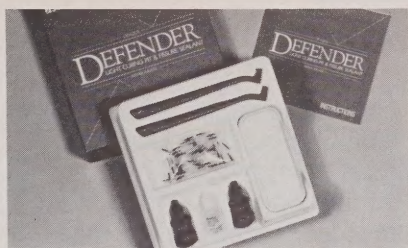
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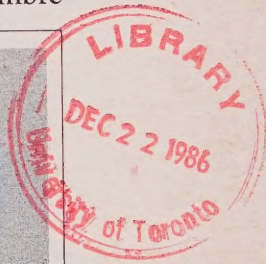
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PRESIDENT'S MESSAGE

I am writing to you enroute from Ottawa to Regina after a weekend of living and breathing Dental Hygiene, politics and strategy. I certainly appreciate how our Central Office staff arranged meetings for me and adjusted busy personal schedules in order to be of assistance.

I met with C.D.A. to discuss possibilities for our participation in their Dental Awareness Program. C.D.H.A. support for the C.D.A. Program is intended to be in addition to our commitment to promote the "Dental Guide for Older Adults" that was developed by C.D.H.A. with federal funding. The Board designated the older adult as the main target group for Dental Health Month activities in 1987.

I also met with representatives of C.D.A. Council on Education and Accreditation and the National Dental Examining Board to discuss the possibility of establishing a National Certificate in Dental Hygiene similar to the one issued for dentists. We identified potential roadblocks and further intermediate steps that will precede national recognition of such a certificate.

Besides attending special meetings, I worked with our Executive Director and Business Manager on several items of housekeeping including changes for the "Journal" and a leadership workshop for Q.D.H.A.

While in Ottawa, I stayed in Doral House where the "Board" will gather for the 1987 Annual Session. A bed and breakfast establishment, Doral House caters to patrons for a very nominal fee, therefore, Annual Session expenses will be kept to a minimum without compromising the working integrity of the Board.

I would like to close with a public acknowledgement of dental hygienists who have recently contributed greatly to the development of our profession in Canada:

To Sharon Amer, Federal Advisor, Dental Health Standards for the initiation and coordination of the Federal Working Group on the Practice of Dental Hygiene.

To Marnie Forgay, Director, School of Dental Hygiene, Dalhousie University who worked diligently as Chairman of the "Working Group" while the report was produced.

To Joanne Clovis, Senior Dental Health Consultant for the Government of Alberta who coordinated the development of the Dental Health Guide for the Older Adult - A C.D.H.A. project with federal funding.

To Yvonne Knazan, Assistant Professor, Faculty of Dentistry, University of Manitoba, who coordinated the development and co-authored, "A Document for Health Care Workers:

Procedures for Oral Care of Chronic Care Patients under the auspices of C.D.A. Council on Hospital Services in Cooperation with C.D.H.A. To Sheryl Feller, Consultant, S.J.B. Management, who was the research coordinator for the Federal Working Group sub-project on the Development of Clinical Practice Standards in Dental Hygiene.

To Pat Johnson, a graduate student who developed the methodology for the National Census Survey of Dental Hygienists to be carried out by C.D.H.A. later this year.

To Audrey Newcombe, Public Health Hygienist who conscientiously guided our Association over the past year, and who has assumed the responsibility of the newly created Public Relations Officer.

To Carol Worobey, Executive Director, C.D.H.A. who works for each one of us, everyday.

With these role models we have something to be excited about! A new sense of the future for Dental Hygiene is emerging today! ■

Dianne Gallagher
President, C.D.H.A.

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1. Schiff, T.G.: "The effect on calculus deposits of a dentifrice containing soluble pyrophosphate and sodium fluoride: a three month clinical study" *J. Clin. Prev. Dent.*, (June, 1986).
2. Lobene, R.R.: "A clinical study of the anti-calculus effect of a dentifrice containing soluble pyrophosphate" *J. Clin. Prev. Dent.*, (June, 1986).



OPINION National Unity

How many times have we heard those words in the last few years? National unity is not just a Canadian problem, but also a Canadian Dental Hygiene problem.

Issues that are happening in Ontario are important and relevant to hygienists in British Columbia, Newfoundland, Quebec and elsewhere. When hygienists in another region lobby for licensing, the rest of us must be there for support. When our National Association negotiates for portability, the provincial associations must do their part on the local front. A

victory won due to the efforts of one provincial association will have positive effects across the country, providing we communicate these events to each other!

How can the individual hygienist ensure national unity?

Support for C.D.H.A. is paramount. Support at the local level is equally important. But the critical element in fostering national unity within dental hygiene is to keep an open mind that does not close at provincial borders. Events two thousand miles away can affect you and how you practice hygiene.

Burying our heads in the sand, or saying the issue is not provincially relevant is to be naive. In the age of jet travel and advanced communication, no one is isolated.

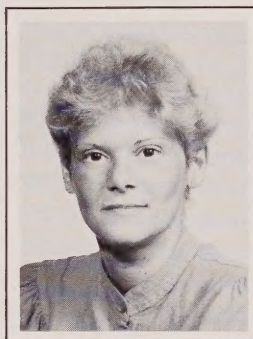
Let us stand together - support our profession. National unity means national support. ■

Fran Cotton.

Meet Your 1986/87 Executive



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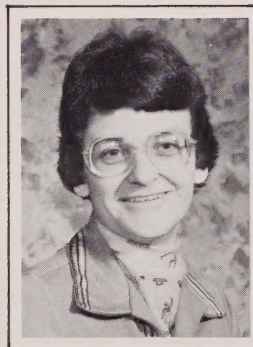
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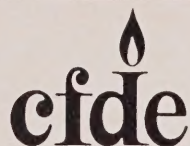
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ACKNOWLEDGEMENT

To Health and Welfare Canada, for their financial contribution towards the publication of the Spring 1986 issue of the Canadian Dental Hygienist. With their assistance, all Canadian dental hygienists received a copy of the Executive Summary of the federal Working Group on the Practice of Dental Hygiene.



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Editor,

I would like to comment on the treatment of Carpel Tunnel Syndrome mentioned in the article "Occupational Health Hazards for Dental Hygienists", Vol. 20, No. 3.

There were two treatments listed: i) steroid injections with splinting and ii) surgery. I would like to point out to those who feel they may be getting symptoms of this condition that there is a more modest, less intrusive route they could try:

I began getting finger numbness and weakness, and severe pain in wrists, elbows and shoulders in 1983 while working during pregnancy. These symptoms returned when I resumed work after maternity leave. As this is a small town, devoid of specialists, I followed my intuition and began treatment with a local Massage Therapist (covered under B.C. Med. with a doctor's referral). It took several months of regular treatment before one arm (my left, I'm left-handed) finally felt normal.

I then began to see a Chiropractor for lower back pain (also covered by B.C. Med.). During one visit I mentioned the persistent pain in my right arm, whereupon he performed a brief manipulation of shoulder, elbow and hand, relieving the pain instantly. I have been fine since but for small twinges now and then which I have "ironed" out at my regular visits to both massage therapist and chiro-

practor. I remain comfortable working a four day week.

Carol (Sam) Wilson RDH
Box 96
Creston, B.C.
VOB 1G0

Editor:

The membership issue of Probe is superb! The "new look" is very eye appealing and professional, easier to read, and the front cover is dynamite. Keep up the good work!

Shelley Williams
Enfield, N.S.

Editor,

Many of us who have been concerned with the development of dental hygiene in Canada have considered the Canadian Dental Hygienist as an identifiable component of our professional growth and identity. I am therefore concerned that the title has been lost on the September 1986 issue, and hope that this is not a permanent change.

Yours truly,

M.G.E. Forgay, *Director
School of Dental Hygiene
Dalhousie University*

Editor:

I truly enjoyed the September issue of the "Canadian Dental Hygienist". I have heard a lot of good comments about it!

Thank you,
Cindi Clencey

Editor:

I have just had the privilege of seeing the new issue of the former "Canadian Dental Hygienist" and had to offer my comments.

"Probe" in both format and design presents a modern and upbeat image to the dental hygiene profession and can do nothing but reflect well upon CDHA as a result. The new

masthead and title of the magazine is particularly appealing.

Congratulations on a fine publication and may you have continued success in your endeavours.

Yours truly,

Carolyn Hackland

Editor

Journal of the Canadian Dental Association

Editor:

Had to write to let CDHA know how marvellous the recent edition of Probe is and how much I enjoyed it; the articles, information and layout. You all must be deservedly proud – I love the new name too, do consider keeping it!

Warmly,

Wendy E. Wright

Program Head

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**McLEOD
YOUNG
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Editor,

I am pleased to see the new look to the inside of the journal, the new section headings and highlighting are a welcomed "face lift". However, I strongly oppose the renaming of the journal. The Canadian Dental Hygienist is a name which we (as an association) all should be proud, having strived for 20 years to be a respected member of the dental journal community.

Janice Pimlott
Edmonton, Alberta

CDHA would like to thank the Alberta Dental Hygienists' Association for contributing the name "Probe".

What do you think? Have your opinions printed. Please write to us.

The following article appeared in *The Halifax Mail-Star* on August 25, 1986

Changes challenge hygienists

Dental hygienists from across the country met in Halifax this week to discuss the future of their profession, including steps which must be taken to meet changing public demands.

With those changing needs presenting a constant challenge, outgoing national president Audrey Newcombe says the almost 3,000-member association is adapting its own philosophy and approach.

"We're a very progressive association that is good at thinking in terms of a changing society and accepting new ideas," Ms. Newcombe, a Prince Edward Island hygienist, said.

One of the biggest areas of change is dental care for the elderly.

"Through education and prevention people are keeping their teeth longer, and are running into different problems," Ms. Newcombe said. "Only 50 percent of the population visits the dentist annually and with the elderly that increases proportionately. The elderly are the target group for us now because they use dental services the least."

With that in mind, the association is assembling an oral resource package designed to cover many of the dental needs of the elderly, she said.



Ellen Brownstone - *First Vice-President*
Dianne Gallagher - *President-Elect*
Audrey Newcombe - *President*
Connie Edstrom - *American D.H.A. President*
Laura Mowat - *Past-President*

With the assistance of a \$95,000 federal grant, the association is putting together an information package to assist health care workers and others working with the elderly.

Dental hygienists, unlike dental assistants, are licensed health professionals specializing in prevention in the dental health field. Trained in the health sciences, hygienists work in a variety of settings ranging from private practice to research.

The association's goal is to promote the dental hygiene profession and improve the dental health of Canadians.

With 23 years spent developing the association internally, the time for a higher profile has arrived, Ms. Newcombe said.

Marketing strategies, long-term planning, priority assessment, goals and objectives, all of these are part of the focus of the approximately 155 delegates attending this year's annual convention.

Local and international speakers will address delegates during the sessions Sunday through to Wednesday, on topics ranging from motivating children and care for institutionalized patients, to problems facing dental hygienists themselves such as back problems and stress.

A complete social agenda has also been planned for visiting delegates including a harbour cruise, and a uniquely Halifax offering, a candlelight tour of the Citadel. ■

Halifax '86

Have you ever wondered what goes on at CDHA annual board meetings, when directors from all across Canada converge on a city (this year Halifax) and sequester themselves for two and one half days all in the name of Dental Hygiene? Have you ever felt that those meetings were totally unrelated to what you do everyday as a hygienist?

Well rest assured, those meetings are vital to each and every hygienist across Canada. Not only do we set policies for our association but we try to ascertain the status of our profession in Canada and other countries. We try to look ahead to the role we can play in a changing society. How can we best help the grass roots hygienists meet the needs of their patients? How can we firmly establish our role as a team member to acknowledge the interdependency of all dental professions?

Let me take you back to those two and a half days in August to see what was done.

No board meeting starts without an evening "get together" the night before. Remember, some of us have never met before and it is important that everyone meet and mingle. So important in fact that we even had a visit from a member of our Royal Family. Until that evening, no one realized how much resemblance there was between royalty and our presidents!!

When our formal meeting starts, the first thing we tackle is our financial situation. This



"H.R.H." Audrey with her P.E.I. Potato Septre

year we took additional time to assess areas and designate priorities. These priorities include: a marketing strategy for the profession of dental hygiene, establishment of national dental hygiene certification for portability and a comprehensive national survey that will provide data for a Dental Hygiene profile and future planning.

You will be hearing more about each of these areas in the near future.

The Board of Directors addressed the development of further communication with other professionals. Firstly, we made a commitment to support the C.D.A. Dental Awareness Campaign. Secondly, we agreed to participate in tripartite discussions regarding National certification (with C.D.A. and N.D.E.B.). Thirdly, we are sending a three member committee to join in discussions with the American Dental Hygienists Association, about marketing, educational standards, organizational development and mutual interests in the newly formed

International Dental Hygiene Federation.

A \$10,000.00 grant was approved for O.D.H.A. to be used in their legislative efforts towards self-regulation. A clearer definition of supervision and regulation in Ontario will benefit hygienists in every region of Canada.

Other Board activities included: endorsement of the Executive Summary of the Working Group on the Practice of Dental Hygiene as a valid statement of C.D.H.A.'s opinion and policy; our directors agreed to submit a proposal on a Research Training Development Grant to the Canadian Fund for Dental Education; we adopted a new logo for our association; Chairpeople updated us on their committees' work; and we wrestled with the ongoing concerns of malpractice insurance coverage.

At this time we can no longer carry the increased premium attached to a blanket coverage. CDSPI, through Guardian Insurance, does offer an affordable individual rate and their cooperation with C.D.H.A. has been excellent. Representatives from both CDSPI and Guardian Insurance were present at our meeting to discuss insurance concerns.

Coming back to the present, your Executive Council is now busy developing the ideas and directions the Board of Directors has laid out. The next time you meet with your national directors, give them a pat on the back for all of their efforts. They deserve it! ■

Audrey Newcombe
CDHA President 85/86

Let's All Learn

In conjunction with the annual C.D.H.A. convention in Halifax, the C.D.H.A. held a one and a half day continuing education conference, "Let's All Learn". The conference was co-ordinated by Mickey Wener and Kate MacDonald. Debbie Lang assisted in raising an excess of \$11,000 of outside funding to cover expenses.

The goal of the conference was to promote continual learning for *all* dental hygienists across Canada. The first day focused on the practical topic of applying marketing principles to dental hygiene continuing education. The day was facilitated by Sheryl Feller, President of SJB Management Consultants, with additional presentations given by Mickey Wener from the University of Manitoba (Why do dental hygienists participate?), Jane Wong from the University of British Columbia (What makes programs successful?), and Sharon Grayden from the University of Minnesota (What makes independent study resources successful?). Ms. Grayden was contacted via audio-teleconferencing. The second day focused on philosophical topics, beginning with a panel discussion on mandatory vs. voluntary continuing education moderated by Kate MacDonald. The speakers were Kaireen Chaytor, former dental continuing education coordinator at Dalhousie and Dr. Robert Wayne Putnam from the Division of Continuing

Medical Education, Dalhousie University. The second day ended with a brainstorming workshop, "Where do we go from here?" which allowed the participants under the guidance of Mickey Wener to generate suggestions for C.D.H.A.'s role in promoting dental hygiene continuing education in Canada. During the conference, resource tables were also available for perusal. "Let's All Learn" continuing education folders were made available for use at the provincial level to communicate to dental hygienists that C.D.H.A. and their provincial associations support their participation in continuing education.

The conference provided a unique opportunity for the 30 participants representing the 10 provinces to not only become more aware of how to better meet the continuing education needs of dental hygienists, but to informally exchange ideas and concerns

Let's All Learn! Apprenons Ensemble!



Mickey Wener -
"Let's All Learn" Co-ordinator

with one another. Efforts are currently under way to extend the impact of the conference by following through with the planning and implementation of continuing education projects to be coordinated at the national level. ■

The 1986 C.D.H.A. National Convention committee gratefully acknowledges the sponsorship of the Province of Nova Scotia for the President's Luncheon held August 25, 1986. The luncheon was held in the Halifax Ballroom of the Sheraton Hotel overlooking the harbour and was attended by 155 delegates.

CDHA Convention Sponsors

WE WISH TO THANK OUR SPONSORS FOR THEIR PARTICIPATION AND SUPPORT.

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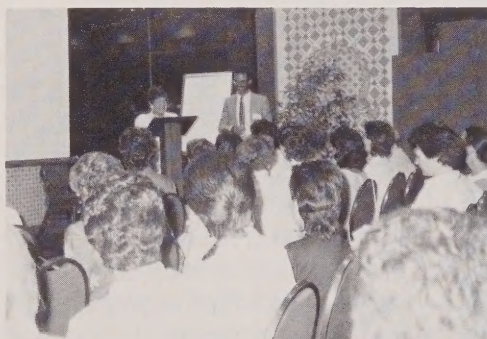
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▲
Peggy Larder -
Convention Speaker

President's Luncheon



◀ Kate MacDonald with
Dr. John Sterrett -
Convention Speaker



▲
Jackie Ferguson, Dianne Tivy and
Dianne Gallagher -
attending Brunch and Learn

Dr. Leah Nomm - ▶
Convention Speaker



PROFILES

Stephanie Nagle

The Canadian Dental Hygienist's Association has awarded a lifetime membership to Stephanie Nagle.

This lifetime membership is in recognition of Stephanie's work as editor of the CDHA's scientific journal. Stephanie edited the journal, a national publication, for six years.

"The journal requires almost daily work," said Stephanie. "All articles are original and the scientific/research submissions have to be reviewed and some translated into French."



"I really was thrilled to be made a lifetime member," Stephanie said. "It was totally unexpected. I always looked on the job of editor as a two-way street - that I was receiving just as much from it as I was investing," she said.

CDHA doesn't give lifetime memberships often. Stephanie's is only the ninth awarded by CDHA and most recipients have served either as President or were members for many years.

She received a certificate of appreciation, a three volume set of Canadian encyclopedia, and a dozen roses. She will be exempt from national membership fees and is entitled to receive all other services provided to hygienists by the Association.

Now that Stephanie is no longer editing the journal, she has more time to spend on the golf course.

Stephanie, who joined the St. Clair faculty on a part-time basis in 1981, is currently teaching dental nutrition, histology, orthodontics and clinical subjects. She became full-time faculty with the start of the current school year.

A graduate of Dental Hygiene at the University of Toronto, Stephanie also has a Bachelor of Science degree from the U. of T. In addition, she is founder and editor of "Off the Cusp", a newsletter sent to members of the Windsor-Essex County Dental Hygienists' Society.

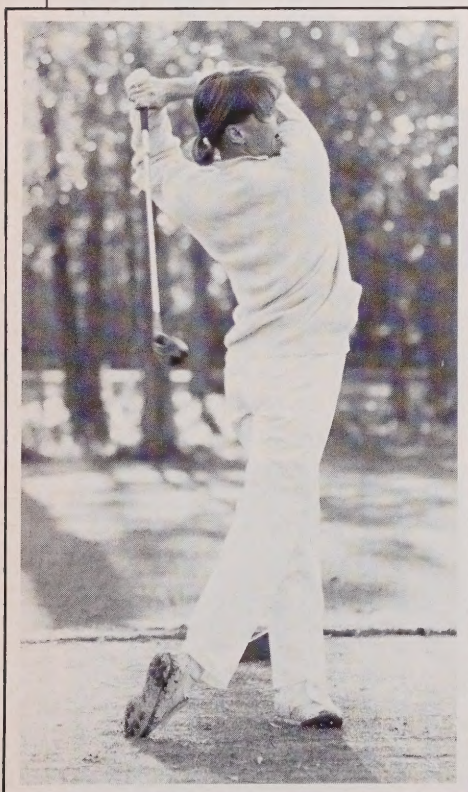
Stephanie joins the following distinguished Life and Honourary Members.

Life Members:

Sharon Amer, Ontario
 Marjorie Dimitri, British Columbia
 Margery Forgay, Nova Scotia
 Willa Jo Gardener, British Columbia
 Patricia Johnson, Ontario
 Kate MacDonald, Nova Scotia
 Margaret Miller, Manitoba
 Ailsa Wood, Ontario

Honourary Member:

Dr. M. Jackson, Ontario





“Smile...for Life”, a dental guide for older adults

Members of the Canadian Dental Hygienists' Association will each be receiving a copy of “Smile...for Life”, a dental guide for older adults, this coming March.

Developed by the Association's Committee on Community Health, the information package contains easy-to-read, illustrated inserts dealing with nine separate topics which promote oral health among older adults.

The dental guide for older adults is targeted at two separate groups of users – older adults, expected to personally use the information gained in the guide where practicable; and caregivers who may use the information in either helping older adults perform their personal oral hygiene, or when necessary, applying the advice and helpful hints in performing necessary oral hygiene practices for their charges.

The publication was spearheaded by Ms. Joanne Clovis, Chairperson of the Committee

on Community Health, with the assistance of an Advisory Committee of health professionals and older adults. A generous grant of \$95,000 from the Health Promotion Contribution Program, Health and Welfare Canada, is making possible the publication of 50,000 copies in both the English and French languages.

Referring to the decision of the Canadian Dental Hygienists' Association to focus on oral health and the elderly during National Dental Health Month in 1987, 1988, and 1989, Ms. Clovis says she is particularly pleased that distribution of the guide is scheduled to begin with National Dental Health Month in April next year.

Copies of the dental guide are free and will be made available after April 1987 from the Canadian Dental Hygienists' Association office in Ottawa.

Geriatric Dentistry

A meeting was held during the Halifax convention, to discuss the merits of forming a Canadian Society of Geriatric Dentistry. At this time, it was decided that it would be advisable to form a branch of the American Society of Geriatric Dentistry. All dentists, dental hygienists and allied health professionals concerned with health for the elderly, are welcome.

Payments should be in American funds at a cost of \$58.00 U.S. for dental hygienists. Subscriptions are on a 12 month basis from the time initiated. For ease of “tracking” Canadian membership, applications should be sent to ASGD director, Dr. P. Ralph Crawford, #1201, 233 Kennedy Street, Winnipeg, Manitoba, R3C 3J5.

Health and Welfare Canada

HEALTH SERVICES AND PROMOTION BRANCH has made available multiple copies, free of charge, of the following publications:

1. Report of the Working Group on the Practice of Dental Hygiene Part I Executive Summary and Recommendations. March 1986 (12 pages).
2. Hints for Healthy Teeth – a pamphlet for parents.
3. Dental Health – A Teacher's Guide K-12 – a promotional pamphlet for the Guide.

4. Oral Radiological Services – Report of the Working Group. December 1979 (108 pages).
5. Preventive Dental Services – Practices, Guidelines and recommendations – Report on the Working Group on Preventive Services – Fifth Printing 1983 (327 pages).

Please contact:
Ms. Sharon B. Amer
Adviser
Dental Health Standards
Health Services Directorate
Department of National Health
and Welfare
Ottawa, Ontario K1A 1B4

QDHA/CDHA Leadership Workshop

On Saturday October 18, 1986, Dianne Gallagher, President of CDHA facilitated a leadership workshop on organization structure. With this group of thirty-five Quebec hygienists, a catalyst was formed to design goals for QDHA/AHDQ. Dianne reiterated the point that - although the Corporation Professionnelle des Hygienistes Dentaires du Quebec has a recognized role - it is the QDHA/AHDQ that should be the *professional voice* of dental hygiene in Quebec. Just as CDHA is the professional voice of dental hygiene in Canada, QDHA should have liaisons to the Corporation, to the provincial government, to the curriculum coordination committee, and to other health professional organizations. Small bilingual group discussions set long term and short term objectives and suggested ways of meeting these objectives. Currently QDHA plans to: print bilingually, change the format of *Pointe de Contact*; improve communication; form additional working committees; create a handbook; and review the constitution. An invitation is extended to join and participate! Contact:

QDHA/AHDQ
445 Jean-Talon Ouest
Suite 107
Montreal, Quebec
H3N 1R1
(514) 277-1983

Christine Wooley
Liaison QDHA/CDHA
7193 Rue de Nancy
Montreal, Quebec
H3R 2L8
(514) 733-8571

Charla Lautar-Lemay
Membership CDHA/ACHD
4557 Anderson Crescent
Pierrefonds, Quebec
H9A 2W6
(514) 626-9151 home
(514) 457-6610 bus.

O.L.I. Granted Accreditation

The Open Learning Institute's Dental Assisting program has been granted full accreditation by the Canadian Dental Association for the maximum allowable limit of five years. The Institute received notice in July that its program had surpassed the rigorous criteria set by the Association.

OLI's dental assisting program is intended for people who wish to continue working while they upgrade their skills.

The two-year distance education program allows students to complete a series of home study modules and write examinations under OLI supervision. They also attend clinical sessions held at several community colleges in B.C. Only those with six months' experience in dental auxiliary practice are eligible to enrol in the program, which provides a Level I program to train chairside dental assistants and a Level II program to train certified dental assistants.

More details on the program are available from OLI advisors at 1-800-663-9711 (toll-free).



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Canadian Dental Association Elects President and President-Elect

Dr. John R. Robertson, of Summerside, P.E.I., was named president at the annual meeting of the Association's Board of Governors held in Halifax in August/86.

Dr. Robertson is past-president of the P.E.I. Dental Association, a past member of the CDA Council on Health Care, and of the Advisory Board, Dental Assisting Program, of Holland College, Charlottetown, P.E.I. He also served as an examiner for the National Dental Examining Board of Canada. He is also a past Governor for P.E.I. to the CDA.

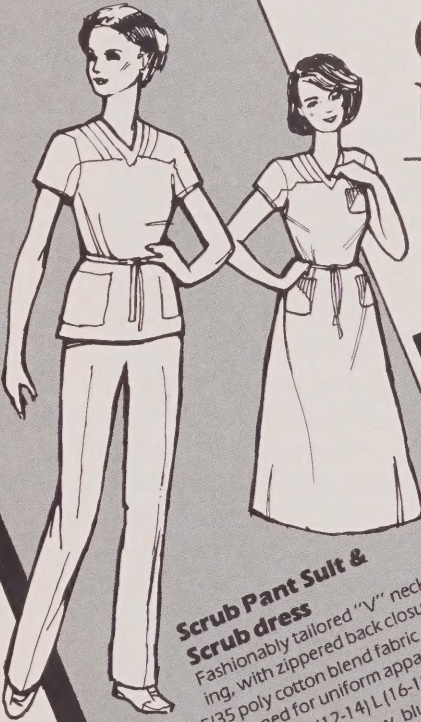
Dr. Ronald J. Markey, a Vancouver specialist in Orthodontics with wide experience in organized dentistry was chosen as incoming president of the Canadian Dental Association for 1987-88.

On August 21, 1985, the American Academy of Head, Facial and Neck Pain and Temporomandibular Joint Orthopedics was founded in Philadelphia, United States, for the purpose of seeking speciality status for those whose main professional interest is in the clinical treatment of head, neck and face pain patients. This is not a research oriented Academy except for that research which is directly applicable to the clinical treatment

of patients. Its main thrust will be the development and dissemination of the newest and most effective methods of medical, dental, pharmacological and physical medicine modalities on this specific group of patients to its members.

For information contact:
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of Head, Face and Neck Pain &
TMJ Orthopedics
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Malpractice Insurance – Questions and Answers:

NOTE: Guardian Insurance is the underwriting company for C.D.S.P.I. malpractice coverage for hygienists and dentists. The following letter, dated July 30, 1986, was sent to C.D.S.P.I. by Guardian Insurance in response to questions raised by the CDHA.

RE: Request from Canadian Dental Hygienists' Association

I refer to the request for information from the above association.

The questions and our responses are as follows:

1. "Is the hygienist covered in any way under the dentist's policy which is taken out with CDSPI?"

Yes, provided that the Hygienist is working under the supervision of the Dentist and has not knowingly acted outside of the requirement of any Health Discipline Legislation and that the work is performed at the Dentist's premises.

2. "Is the CDSPI *always* a *secondary carrier* when malpractice coverage exists through an employer's policy?"

The CDA policy coverage is primary except in the following situations:

- a) While acting on behalf of a Professional Association or a Hospital;
- b) In the Province of Ontario when the insured is licensed or insured by the R.C.D.S.;

In both cases our insurance would then be excess and apply if other coverage has been exhausted.

3. "What are the ramifications of multiple coverage?"

This situation can develop where a dentist, hygienist, and perhaps a partnership all have malpractice coverage. The order of payment would be determined by the individual policy wordings. When the CDA program is involved, this would pay first and other carriers in excess of our policy except as stated in the answer to question 2.

A fact which is very important to keep in mind is that the dentist or clinic may allow their coverage to lapse or be cancelled without the hygienist being made aware of this. This alone, is sufficient reason for a hygienist to purchase individual protection.

4. "Does CDSPI malpractice insurance benefit hygienists working in Public Health?"

As Public Health facilities do not purchase insurance through the Guardian Insurance Company of Canada, I would recommend

they contact the facility in question and ascertain the coverage available.

5. "Is a hygienist covered by CDSPI malpractice insurance if she/he performs a duty outside the scope of practice?"

No, the policy excludes coverage for hygienists knowingly acting outside of the supervision requirements imposed by any Health Disciplines legislation, (except in jurisdictions where there is no such legislation) if not acting under supervision of a licensed dentist and if not on the premises of a licensed dentist.

6. "Definition of 'supervision' and 'direction' are subject to interpretation on a provincial level dependent upon the legislation. Is a hygienist covered by malpractice if she/he performs outside her/his scope of practice if 'directed' to do so by the dentist?"

As in Question #5, if a hygienist knowingly operates outside their scope of practice, no coverage is available. However, in a jurisdiction where no such legislation exists coverage would be available if acting under the supervision of a dentist.

7. "Is the hygienist guaranteed separate legal counsel for a lawsuit involving both the dentist and the hygienist *both* with malpractice coverage from CDSPI?"

In any situation involving multiple defendants, the Guardian will determine if a possibility exists that a conflict of interest may develop if our lawyer represents more than one interest. If this possibility exists, separate legal representation will be provided.

8. "Does CDSPI reserve the right to choose the legal counsel?"

No, this decision rests with the Guardian Insurance Company of Canada.

Please do not hesitate to contact us if you require anything further prior to your meeting in Halifax.

Yours sincerely,

Douglas R. Poole
Senior Underwriter
Special Accounts Branch
Guardian Insurance



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ALTERNATIVE PRACTICE

Francine Gagnon

Francine Gagnon graduated from John Abbott College in Montreal, Quebec in 1977 and immediately moved into a position in private practice. She decided to move in another direction when she found her day-to-day tasks began to feel "routine". She wanted to take a different turn with her diploma in dental hygiene.

Thinking that further education would provide the stimulus she felt her career needed, Francine returned to school – this time to the University of Montreal where, 15 credits later, she realized she was still "restless". What she wanted was broader experience and, through discussions with friends who were sales representatives in the food products industry, she decided to give sales a try.

Armed with her education, work experience and a great deal of determination, Francine approached the Director of the Professional Service Division of the John O. Butler Company which was then located in Dorval.

"I sold myself to them," she reports. "Who, other than a dental hygienist, would be better to sell their products to other hygienists?"

The new challenge was Francine's career motivation. She was given a sales territory



in Quebec and the Maritimes. Her position was essentially "created" for her and, Francine points out "this was a trial endeavour for the company as well as for me."

As a professional representative for a dental products company, it was Francine's job to make products known to her customers who would in turn recommend them to their patients. Not only did she need to get into offices and speak to the people who had purchasing power and access to patients, she also had to be well-versed on the quality of her products in order to have critical discussions with her clients. She found "selling" a comfortable job and she became increasingly more interested in testing new products and gauging reactions of patients to Butler products. To this end, she spends about ten hours a month in an orthodontic practice working directly with patients.

Now free from the restrictions of private practice, Francine enjoys the autonomy of products sales. She likes to make her own decisions and help practicing hygienists solve problems.

Self-discipline is a necessary attribute for anyone considering entering the sales field, says Francine.

The weather and traffic tie-ups are the two most distressing aspects of her job, but these pitfalls are balanced by people-contact and education. She also participates in conventions and gives demonstrations to students in colleges.

Francine is now Supervisor of the Professional Division of John O. Butler in Canada. She is a strong example of the qualities she outlines as necessary for success in her field:

"You have to be disciplined, independent and resourceful. You have to be enthusiastic, tenacious and discreet. You must also have a sense of humour, a sense of direction and a pleasing personality. You must have a positive outlook and a lot of self-confidence around other people." ■

COMING OF AGE

From an address by
E. Brownstone to her
graduating class.

Ellen Brownstone B.A.,
R.D.H., M.Ed.
*Director and Associate
Professor
School of Dental Hygiene
University of Manitoba*



Dental hygienists provide a valuable dental service to the public along with other members of the dental team. Traditionally, dental hygienists have played and continue to play important roles in clinical dental hygiene practice and in public health. However, over the past several years, dental hygiene career avenues have expanded to include dental hygienists, with some additional formal education, working as consultants, to government, public health and private agencies, being actively involved in dental research, teaching in diploma and post-diploma dental hygiene and dental programs, working as clinicians and educators in institutions for the handicapped, in senior centres and in hospital settings, and taking on management positions in city or government dental programs.

I believe this is a very exciting time for the profession of

dental hygiene. Dental hygiene as a professional body at provincial levels and at the national level is "taking shape". Our profession presently and in the future will play a significant role in the prevention of dental disease and in the education of the public. As dental caries rates are decreasing and evidence of the need for prevention and treatment of periodontal disease increases, dental hygienists as preventive dental specialists will be vital to the delivery of dental services in Canada.

There are presently 6,000 dental hygienists in the

country. The national association of dental hygiene is today addressing issues which will direct the profession in the future. Such issues include: education, regulation, supervision, portability and future dental hygiene practice. Recognition of the dental hygiene profession as an essential, integral part of dentistry by the public and by the dental profession is increasing as are cooperative efforts between the dental and dental hygiene professions to work toward our common goal of improving the dental health of Canadians. ■

INTERNATIONAL DENTAL HYGIENE EVENTS: CANADA'S PARTICIPATION

Patricia M. Johnson
Eleanor McIntyre
Jo Gardner

Oslo, Norway was the site recently of international events of interest to dental hygienists. The 10th International Symposium on Dental Hygiene together with the meetings of its sponsoring agency, the International Liaison Committee on Dental Hygiene, were held June 26 to 29, 1986. While both occasions are noteworthy, it was another event, the founding of the International Dental Hygienists' Federation on June 28th, that has particular significance. It denoted another first in the history of the dental hygiene profession world-wide. Dental hygienists in Canada were represented by a number of colleagues who participated in these events, highlights of which are presented in the following account.

The 10th International Symposium on Dental Hygiene

The Oslo Symposium was the tenth in a series held since the mid-1960s in countries including Sweden, the Netherlands, Japan, Canada, the United Kingdom and the United States. This symposium's theme, "Dental Hygiene for Everyone", provided a comprehensive perspective from which to view the art and science of dental hygiene. Organized under the auspices of the International Liaison Committee on Dental Hygiene (ILC), the symposium was hosted by the Norwegian Dental Hygienists' Association with its Symposium Organizing Committee co-chaired by Inger-Lise Bryhni and Elisabeth O. Kollojornsen. Approximately 400 participants from 22 countries, including 15 dental hygienists from Canada were in attendance - truly a progression towards global representation.

There were three facets to the organized activities of the symposium: scientific, cultural and social. Within the scientific program there was a wide scope of subject areas presented in a variety of formats; dental hygienists participated in formal lectures, seminars, hands-on workshops and research papers. Such diverse topics as the delivery of dental health service to special needs groups, recent advances in the prevention of dental disease, communication skills, clinical dental hygiene, the problem of infectious diseases in dental hygiene treatment, and the structure of dental hygiene practice were addressed in these scientific sessions. Dental hygienists involved in research programs presented a total of 43 papers - 9 of which were Canadian. This is, indeed, a positive indication of the growth and maturation of the profession at the international level.

The scientific sessions fostered a cultural sharing between dental hygienists from different countries,

regarding their professional roles and practices. Common problems were identified through this exchange, including legislation, scope of practice, education, the relationship of dental hygiene to dentistry, and the role of the professional associations. Through these discussions, unity and a willingness to work together toward common goals were forged. National experiences of participants were placed in the perspective of the international scene.

The international fellowship which was fostered in Oslo was solidified by a unique social program. Norwegian hospitality created an ambience in which friendships were formed and promises to keep in touch were extracted. The Symposium participants enjoyed magnificent landscapes, excellent food, and local customs. The social program and Norwegian hospitality will be remembered well past the 10th International Symposium. The Norwegian Dental Hygienists' Association is to be warmly congratulated for the organization of the 10th International Symposium - a truly historic occasion in the development of dental hygiene.

International Liaison Committee on Dental Hygiene

The meetings of the International Liaison Committee on Dental Hygiene were held in Oslo in conjunction with the 1986 ILC Symposium. Repre-



International Dental Hygienists' Federation
Jo Gardner, Canada - *Secretary/Treasurer*
Wilma Motley, U.S.A. - *President*
Patricia Johnson, Canada - *Vice-President*

sentatives from the seven-member organization, i.e., national dental hygienists' associations from Canada, Japan, Netherlands, Norway, Sweden, the United Kingdom and the United States, were present. Presiding officers were Wilma Motley (USA), president and Jo Gardner (Canada), secretary-treasurer. Pat Johnson and Jo Gardner were the official CDHA representatives. Audrey Newcombe, CDHA president at the time, was among those Canadians present as observers for some of the sessions.

The volume of business conducted at the pre-symposium meeting was such that meetings for delegates continued throughout the three-day symposium. Two major issues were on the agenda: (1) development and approval of a policy on human rights, a criterion for membership, and (2) adoption of rules and regulations to permit the establishment of an international association.

International Dental Hygienists' Federation

Successful resolution of these issues led to the founding of the International Dental Hygienists' Federation (IDHF) on June 28, 1986. As one of the seven members of the ILC, and through its official representatives, the Canadian Dental Hygienists Association signed the declaration documents as a founding member of IDHF. The first officers of the new organization are Wilma Motley (USA) as president, Pat Johnson (Canada) as vice president, and Jo Gardner (Canada) as secretary/treasurer. Following the election whereby the two directors from Canada became IDHF Officers, Audrey Newcombe was accepted as Acting Director to IDHF.

Three dental hygiene organizations, from Australia, Denmark and Switzerland, were approved as members, bringing the current IDHF membership to



Norwegian Hospitality

ten national associations. Other business included review of organizational rules and regulations, approval of membership subscription fees, adoption of guidelines for IDHF Symposium and acceptance of the CDHA offer to host the next symposium, to be held in Ottawa in late June 1989.

At the recent Board meeting in Halifax, two new directors were appointed to represent CDHA on the IDHF Board of Directors - Sharon Amer (3-year term) and Ailsa Wood (6-year term). Their active involvement in the new organization over the next three years will culminate in their participation in the next IDHF Board meetings, to be held in Ottawa in conjunction with the 1989 Symposium.

11th International Symposium on Dental Hygiene

The 1989 Symposium, while the first to be sponsored by the newly formed IDHF, will be the 11th in this series of international meetings. The primary

theme of this Symposium, which will be held in Ottawa, Canada, will be "Dental Hygiene: Past, Present and Future", with a secondary theme "Professionalization and the Dental Hygienist". The 1989 Symposium Steering Committee of IDHF will include Sharon Amer as Chairman and Dale Scanlan, chairman of the Organizing Committee for the Symposium. Plans have been in progress for over a year to ensure that the 1989 Symposium will be as stimulating and memorable as its predecessors.

Plan now to attend and participate with colleagues from around the world.

Experience the excitement of an international event. Be a part of the process as dental hygiene develops a more global perspective and a world-wide sphere of professional activity and service.

The Ottawa Symposium will be held June 1989. As Canadian hygienists we will be moving out of the 80's and into the 90's realizing that we are an integral part of a truly international profession. ■

C.D.H.A. would like to express it's appreciation to J.W. Horner, manufacturer of Jordan Toothbrushes for sponsoring the attendance of Dale Scanlon, Organizing Chair of the 11th International Symposium on Dental Hygiene, at the 10th Symposium in Oslo, Norway.

Canadian hygienists in Oslo



FORENSIC ODONTOLOGY: AN EXPANDING FIELD

Diane Moore S.D.T., R.D.H.

Ms. Moore is in private practice in Regina, Saskatchewan.

Abstract

The use of teeth and their surrounding structures in identification appears throughout recorded history. As well as being beneficial in the identification of unknown persons, the techniques employed in forensic odontology are being accepted by the legal system as factual evidence of criminal guilt.

This paper focuses on three areas of forensic odontology; the identification of persons by examination of dental remains, examination of bitemarks and dental jurisprudence. The major steps in establishing a dental identification and dental characteristics of the human dentition used for identification purposes are discussed.

A new method of personal identification has been developed which involves the placement of a Personal Dental Identifier under dental

restorations. This new system decreases the time requirements to achieve an identification and has become a useful adjunct to forensic odontology.

Sommaire

L'histoire fait constamment état de l'identification par les dents et leur disposition. Grandement utiles pour identifier les personnes inconnues, les techniques d'odontologie légale sont reconnues par le système judiciaire comme étant une preuve factuelle de culpabilité en matière de droit pénal.

Le présent article porte sur trois aspects de l'odontologie légale: l'identification dentaire des personnes décédées, l'examen des morsures et la jurisprudence dentaire. Il trace les principales étapes de l'identification dentaire et de l'établissement des caractéristiques de la dentition humaine aux fins de l'identification.

On a mis au point récemment une nouvelle méthode

d'identification qui consiste à placer une pièce d'identité personnelle sous une restauration dentaire. Cette méthode permet de sauver du temps au moment de l'identification et constitue un développement fort utile en odontologie légale.

The identification of unknown human remains is becoming one of dentistry's most important professional obligations. The use of dental evidence in the interest of law and justice is known as forensic dentistry or forensic odontology, which is the international name. The field of forensic odontology includes the following areas: 1) the identification of unknown persons by examination of dental remains; 2) the examination of bite marks for the purpose of elimination or possible identification of a suspect as the originator; and 3) dental jurisprudence.

The odontology section of the Canadian Society of Forensic Science was formed in 1972. Requirements for a qualified membership are a dental degree, active engagement in forensic science for three or more years, or involvement in studies that have contributed to forensic science, or training or experience that qualifies in a branch of forensic science.¹

The field of forensic science used by law enforcement agencies, medical examiners, coroners and the dental profession has advanced dramatically for a variety of reasons. Identification is essential for legal requirements such as death certificates, insurance purposes and settlement of estates as well as the human and emotional factors involved in the case of a missing person.

Society demands investigations of death, especially those of a violent, suspicious or criminal nature. Jonestown residents who drank the fatal Kool-Aid mix on November 18, 1978 were named because of individual dental characteristics. When visual identification of a corpse is impossible because of body decomposition, identification through dental records is necessary. This occurred in the identification of 19 of the 33 young men and boys found buried beneath John Gacy's suburban Chicago home in 1980.²

In child battering cases, courts are upholding decisions related to forensic testimony and evidence such as oral injuries and bite marks found on the victim.³

There are numerous reports in newspapers, magazines and journals regarding the use of dental evidence following mass disasters.

- 1951 - S.S. Noronic ship fire in Toronto, 99 out of 102 victims identified.⁴
- 1979 - crash of the Air New Zealand D.C. 10 aircraft on the slopes of Mt. Erebus, Antarctica, 142 of the 224 recovered bodies of passengers and crew identified.⁵
- 1980 - MGM Grand Hotel fire, Las Vegas, 82 victims identified.⁶

In cases when the human body has not been badly disfigured or mutilated, identification can usually be determined visually by next of kin. Body markings such as scars and tattoos, distinctive jewelry (wedding bands with initials and dates) and personal belongings can all help in the identification.

Fingerprinting is the most universally used identification method. In catastrophic events such as hotel fires or aircraft crashes, fingerprints often are destroyed with other soft tissue. Complicating matters even further, most individuals are no longer fingerprinted unless they have a criminal record, serve in the Armed Forces or work where a security clearance is required.

Because of their hardness and composition, the teeth tend to remain intact long after destruction of the soft tissue and remainder of the skeleton. Studies indicate that when exposed to high heat, teeth may become brittle at 400°F and break down to ash at 900°F.

Teeth may be protected from such high heat by the insulation of soft tissue, bone and dental restorations are likely to withstand considerably higher temperatures. In severe fires, the top of the skull usually burns first, then the brain, and last of all the mouth where the saliva is turned to steam. The tongue, cheek and lips protect the mouth. The presence of gas in the intestines, stomach and lungs may cause the tongue to protrude and swell thus protecting the teeth.⁸

Dental Identification

Dental identification is based on the fact that no two dentitions are alike. The adult dentition, consisting of 32 teeth each with 5 surfaces yields 160 different surfaces in the oral cavity. Pathological changes affecting these 160 surfaces combined with dental materials, root canal treatments, prostheses and surrounding bone and soft tissue changes yield to over 2.5 billion different possibilities in the human dentition.³

In the process of establishing a dental identification there are four major steps:

- 1) examining the oral region
- 2) preparing postmortem records
- 3) obtaining antemortem records
- 4) comparing antemortem and postmortem records

Antemortem records include dental charts, radiographs, study models and photographs. Antemortem records and their sources vary almost

as much as dental charts themselves. Over 150 types of dental charts exist in the U.S. alone and there are various methods of coding the information, i.e. dental numbering systems. Problems arise in interpreting various abbreviations and symbols found in the charts which may be nearly illegible.

The dental radiograph is considered to be the most important antemortem record because of its dependable and precise reproduction of detail. Images of the teeth and surrounding structures can be as unique as fingerprints. In addition to the general practitioner or dental specialist, antemortem radiographs may be obtained from dental schools, hospitals, prisons and the Armed Forces.

Additional antemortem evidence is gained from dental study models. Comparison of the victim's jaws with the models can enable an immediate identification.

Some dentists take "before and after" photographs of their patients. Even non-dental photographs taken by an amateur photographer can show missing, discoloured or chipped teeth or a malocclusion which might be a clue to the victim's identity.

Before examining the dentition of the unknown deceased, access to the mouth must be gained. The procedure used to attain access depends on the condition of head at the time; normal condition, partially or completely decomposed, mutilated or burned. There may be a combination of conditions

in one head. For example, both burned and mutilated conditions may be present as the result of an explosion.

The completely decomposed head is probably the easiest to work on as there is no tissue covering the teeth. The partially decomposed head presents a grizzly experience for the forensic odontologist because of the offensive odor and the presence of maggots in the flesh. Of all cases of identification, the burned head is the most difficult because of problems in gaining access to the mouth. When the head is severely burned it is often difficult to distinguish the area of the eyes, nose and lips as the tissues are hard, crusted and unyielding. It is not unusual for the mouth to be sealed shut making resection of the jaws necessary.

Characteristics of the dentition used in identification purposes include:

- 1) variation in arch form and size
- 2) presence of tori and anatomy of rugae
- 3) teeth - number, shape, unerupted/impacted, missing, rotated, malaligned, nature and extent of wear, and decayed surfaces
- 4) presence of diastemata
- 5) restorations - position, contour, overhanging margins and materials from which they are made

This information may be useful in the identification of the victim's country of residence or origin. Different types of cavity preparations may be taught in

different dental schools. Designs of crown and bridge work differ. For example, in Japan and Eastern Europe steel crowns are commonly used and full gold crowns on anterior teeth are often seen in Southern Europe.⁹

Additional characteristics of the oral cavity include:

- 6) periodontal condition
- 7) presence of dentures and appliances

The bones and teeth of the human skull also reveal numerous traits useful in determining race, sex, age, occupation, socio-economic status and time of death. For example, the Negroid skull characteristically has a wide interorbital distance and maxillary and mandibular protrusion. Generally, the male skull is larger and more rugged with square orbits. In contrast, the female skull is smaller, rounder and the orbits are higher, larger and more rounded.

Eruption sequences, degree of root completion, root surface resorption and crown attrition as well as changes in the chemical composition of teeth can provide valuable data concerning the victim's age. Musicians such as woodwind and brass instrument players may exhibit damage of the periodontium; chemical factory employees may have chemical deposits on the teeth. The quality of the dental work can often provide information relating to the financial and social position of an unidentified person.

The time of death may be determined by postmortem changes in the teeth. The pulp and dentin tissues follow a particular pattern of changes as certain chemicals, fungi and bacteria invade the dentin following death.

A new method of dental identification has been developed which shortens the time and attention required for the antemortem-postmortem comparison system. This method involves the placement of a Personal Dental Identifier under restorative material in the tooth. The identifier carries information recorded in a microminiature mode and is relatively indestructible. It has survived repeated test firing to 1650°F.¹⁰

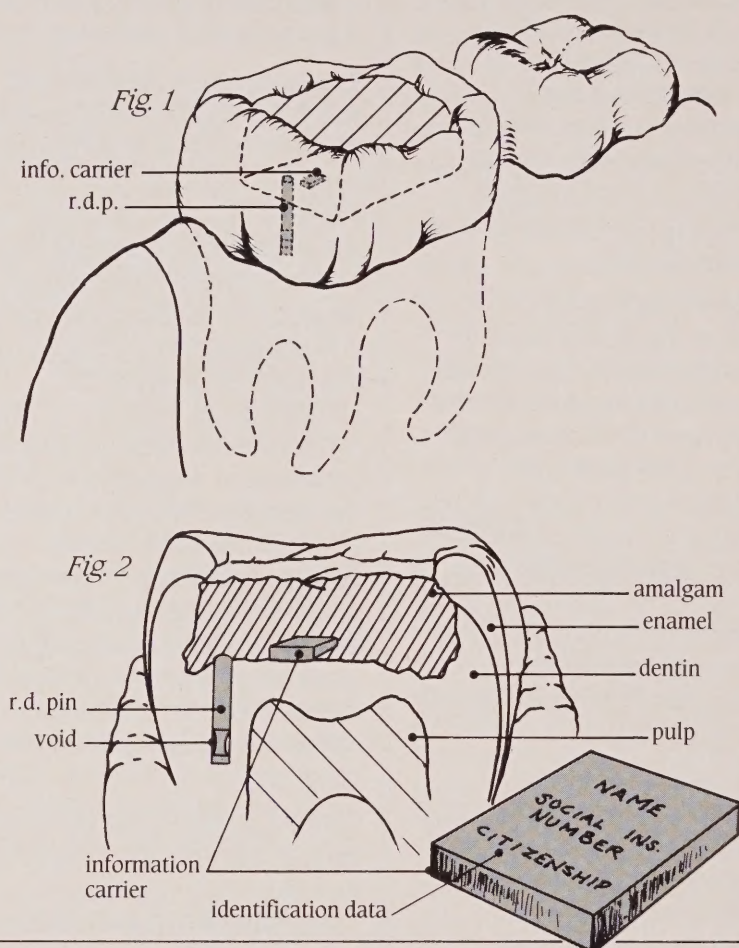
A stainless steel or silverplated brass pin termed a Radiographic Disclosure Pin is also placed in the tooth. The Radiographic Disclosure Pin signifies the presence of the identifier, which because of its shape and size is obscured by the restoration.

The components of the Personal Dental Identifier system are illustrated in Figure 1 and Figure 2. The time estimates for this system and the antemortem-postmortem comparison system are shown in Figure 3.

Bite Mark Evidence

The second largest area of concern in forensic odontology is bite mark evidence.³ This type of evidence has led to conviction of suspects in crimes associated with child battering, homicide and sexual assault. Bite mark analysis is

Figure 1 & 2 - The radiographic disclosure pin and the personal dental identifier in teeth.



based on the fact that when someone bites flesh, foodstuffs or inanimate objects, he will leave a dental pattern unique to that set of teeth. The musculature of the lips, cheeks, tongue and the mental state of the biter as well as the portion of the body where the bite was inflicted all play a role in the toothmark pattern.

Bite marks are utilized to estimate the time the bite was inflicted in relation to the time of death. Time of death is determined by the presence or absence of subcutaneous bleeding.

Serological evidence associated with the bite mark is also useful as it is impossible to inflict a bite mark without leaving tracings of saliva. From saliva samples the presence or absence of salivary amylase, antigens and other proteins can aid in determining the suspects blood type.¹¹

Dental Jurisprudence

Forensic odontology has also been beneficial in disclosing cases of dental fraud.¹² Near Stamford, Connecticut a headless skeleton was found lying under a pile of rocks off

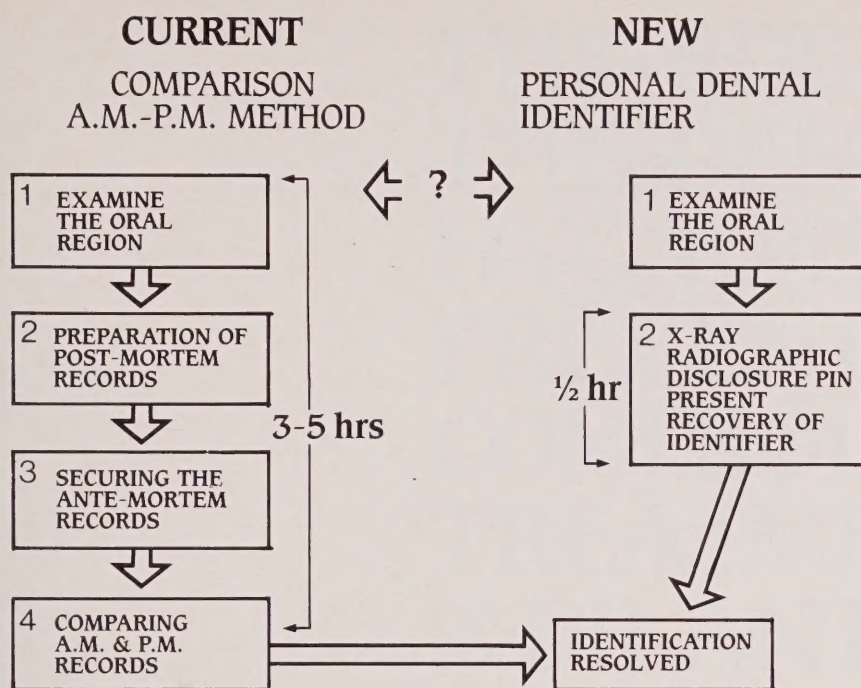


Figure 3 - Comparison of time estimates required for identification.

the Merritt Parkway. The skull was recovered a few days later, it had been crushed and the pieces scattered. The police theorized that the body was that of a Negro prostitute who had been reported missing.

The skull was assembled and upon comparison with the victim's antemortem dental records it was discovered that certain fillings recorded on the antemortem chart were not present postmortem. The victim, later identified as the missing prostitute, had been a welfare recipient. From a check of state welfare records, it appeared that the dentist had received payment for work not found in the skull!

There have been cases of dental records being tampered with in an attempt to "cover up". This seldom helps as late entries can be spotted by document examination experts

according to differences in the age of the ink.

Dental evidence has proven to be invaluable in the identification of victims of mass disasters and civil and criminal investigations where other methods of identification are not available. Teeth and their surrounding structures have distinctive characteristics and they frequently provide the most consistent and reliable sources of information, information that often assists in arriving at a point where the evidence found is "beyond reasonable doubt".

Conclusion

The scope of forensic odontology is continually expanding through the works of forensic organizations, continuing education courses and seminars, the publication of textbooks and the increase in published articles.

Today, professionals in this field are utilizing their talents in researching new technologies in the investigation of human remains, bite mark analysis and data banking of dental characteristics. Computer programs to aid dental identification following mass disasters are being developed. These programs enable the forensic odontologist to sort out antemortem data, make the necessary comparisons with postmortem findings and draw conclusions.

Members of the dental profession can help in the task of identification by maintaining accurate and complete records of all patients. Records, written and radiographic, should be saved a minimum of seven to ten years. These records should be released without hesitation when requested by a law enforcement agency or forensic team.

The efforts of the forensic odontologist have resulted in great respect for the dental profession by policy departments, judges, lawyers and other forensic scientists. Forensic odontology has evolved into a challenging and worthy branch of dentistry which will continue to make valuable contributions to both law and science. ■

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THE ROLE OF THE DENTAL HYGIENIST IN THE PREVENTION, CONTROL AND TREATMENT OF DILANTIN* HYPERPLASIA

Susan Allan, S.D.T., R.D.H.

Ms. Allan is in private practice in Coquitlam, British Columbia.

Abstract

Dilantin has been used as an anticonvulsant by epileptics since 1938. The major side effect of the drug, Dilantin, is a gingival overgrowth called Dilantin hyperplasia.

Plaque has been found to be a major etiological factor in the incidence of Dilantin hyperplasia. Therefore, dental personnel may play an effective role in the prevention, control and treatment of Dilantin hyperplasia by:

- 1) *A comprehensive plaque control program.*
- 2) *Increased frequency of prophylaxis - on a three to four month basis for the first six to nine*

months of Dilantin usage.

- 3) *Establishing patients who exhibit Dilantin hyperplasia on a plaque control program before or simultaneous with correctional surgery.*

Sommaire

Le dilantin sert à prévenir les convulsions chez les épileptiques depuis 1938. Il a comme principal effet secondaire le surdéveloppement de la gencive qu'on appelle hyperplasie du dilantin.

Comme la plaque est un des principaux facteurs étiologiques de l'hyperplasie du dilantin, le personnel dentaire peut jouer un rôle important dans la prévention, la maîtrise et le traitement de cette anomalie en prenant les moyens suivants:

- 1) *programme complet de contrôle de la plaque;*
- 2) *prophylaxie plus fréquente - tous les trois ou quatre mois pendant les six ou neuf premiers mois d'usage du dilantin;*
- 3) *application aux patients atteints d'hyperplasie du dilantin d'un programme particulier de contrôle de la plaque avant et pendant la période de chirurgie réparatrice.*

Dilantin has been employed as an anticonvulsant by epileptics in the control of grand mal seizures since 1938, but is also occasionally used for behaviour problems, stuttering, headaches, neuromuscular disorders, and cardiac conditions.^{2,13} A major side effect

of the drug Dilantin is gingival hyperplasia. Although the exact mechanism by which Dilantin induces the hyperplasia is unknown, Dilantin hyperplasia occurs in roughly 40 to 50 percent of patients taking this medication. Considering that one in two hundred of the world's population has epilepsy, Dilantin hyperplasia is of concern to the dental health professions.⁵

This article endeavours to evaluate the significance of the role the dental hygienist may play in the prevention, control and treatment of Dilantin hyperplasia.

Epilepsy is a disorder of the central nervous system. An epileptic is subject to recurrent involuntary loss of consciousness, without loss of control of muscle function (petit mal) or accompanied by convulsions (grand mal). Some patients have convulsions without loss of consciousness.¹³ Some precipitating factors of an epileptic seizure are anxiety, emotional disturbances, fatigue secondary to lack of sleep, sleep or arousal from sleep, flickering lights, sudden sounds or other physical or sensory stimuli.¹³

Medical History

Until the early 1900's many people believed that epileptics were possessed by the devil. Epileptics locked in attics or burned at the stake were occurrences not uncommon in those days. Public education has greatly relieved these myths but dental personnel should be aware that some

patients may not admit they are epileptics in their medical history or be very reluctant to discuss the issue. Informing the patient of your knowledge of epilepsy and its' possible relation to dentistry will help in easing any anxieties the patient may possess.

*Dilantin is a trade name for Sodium Diphenylhydantoin.

The taking of a thorough medical history is of great importance. Dental personnel, realizing that the patient is a Dilantin user, may recognize the early signs of Dilantin hyperplasia, and help to halt or retard its' progress.

Oral Manifestations

No other drug produces such an unusual oral effect as Dilantin. The overgrowth first appears as a painless enlargement of interdental papillae with signs of inflammation. In time, the tissue becomes stippled, pink and fibrotic with a cauliflower-like appearance. As the hyperplasia intensifies it extends to the marginal gingiva, may cover the anatomic crown, wedge the teeth apart and interfere with mastication.¹³

Histology

Histologically, Dilantin hyperplasia is described by Hassel et al as a lesion consisting of an excessive accumulation of fibroblasts and collagen fibres in the marginal gingiva,⁶ while edentulous areas are relatively unaffected.⁵

Etiological Factors

The drug Dilantin is the cause of this gingival overgrowth, but scientists seem to have varying opinions on whether certain secondary factors are related to the degree of gingival hyperplasia.

"In a survey of 173 hospitalized patients with DPH (Diphenylhydantoin hyperplasia) Angelopolous and Goaz⁵ found that of all the variables studied, oral hygiene, age, sex, daily dose of diphenylhydantoin sodium medication or duration of treatment, only the degree of oral hygiene was related to the degree of gingival hyperplasia."²

"The severity is generally not related to the dosage or duration of therapy..."⁷

"Most studies on Dilantin hyperplasia indicate there is no correlation with sex or duration of drug therapy but regarding age and drug dosage there are conflicting reports."⁴

The one contributing factor researchers agree on is that severity is directly related to the lack of adequate oral hygiene and the degree of local irritation.¹⁻⁴

The most obvious step towards the elimination of Dilantin hyperplasia is the discontinuation of its' usage. Physicians, however, have been reluctant to substitute another anticonvulsant for Dilantin due to its' predictable clinical effectiveness.² Many epileptics cannot be controlled on substitute drugs and the hazards of frequent seizures far outweigh the side effect of gingival overgrowth.

Treatment

There are two major modes of treatment available for Dilantin hyperplasia:

- 1) Conservative approach (supervised oral hygiene)
- 2) Radical approach (gingivectomy, etc.)

Noted are examples of studies done in these areas as they relate to the provision of services by a dental hygienist.

- 1) Conservative approach (supervision of oral hygiene)

Pihlstrom et al¹ conducted a fifteen month longitudinal study on the effectiveness of a specific preventive dental program on an experimental group starting Dilantin therapy for seizures and a control group with no history of seizures or anticonvulsant medication. The experimental group were all referred by their neurologist after starting Dilantin therapy but all entered the study within 30 days after beginning drug ingestion.¹

The purpose of including the control group was to compare the periodontal response to the preventive program between the experimental group taking Dilantin and the control group who were not taking Dilantin.¹

Upon entering the study, the control and experimental group underwent the exact same oral preventive program. "At the initial appointment and at each subsequent 3-month interval, the severity of gingivitis as well as the amount of plaque and calculus were assessed for each subject."¹ Study models were also obtained to measure the

degree of gingival enlargement. This was done before dental prophylaxis and oral hygiene instruction.¹ The oral preventive program for the experimental and control group consisted of a dental prophylaxis (including scaling, root planning and polishing), and oral hygiene instruction. All participants returned at weekly intervals, for three weeks, for the reinforcement of oral hygiene. They then returned at monthly intervals for oral hygiene reinforcement. An important aspect was that a prophylaxis was completed on a three month basis rather than a six month basis. The prophylaxis caused some negligible recession in the control group but worked very effectively for the experimental group, especially during the first six months.¹ These services were all provided by a dental hygienist.

The authors concluded that the results of their study confirmed that gingival enlargement associated with Dilantin therapy could be minimized by a preventive program of regular (if not increased) dental prophylaxis combined with oral hygiene instruction.¹ Others^{4,8,12} reported similar findings.

Another interesting observation of this study was that the small amount of gingival enlargement which did occur was only in the anteriors, during the first six months of the study. This enlargement was minimal and not apparent to any of the experimental subjects.¹

- 2) Radical approach (surgery, i.e. gingivectomy)

Clinical experience has demonstrated that patients who are surgically treated for Dilantin hyperplasia are likely to have a recurrence.⁴

Donnenfeld et al⁴ disproved this statement. In their study, they tried to determine whether plaque control procedures could prevent a recurrence of Dilantin hyperplasia clinically and histologically. The study was based on patients who had recently undergone gingivectomies in one anterior sextant. All patients were institutionalized, mentally handicapped, free from any systemic illness other than having epilepsy and their primary medication was Dilantin, each patient receiving moderate dosages of 50-100 mg three times daily. Two weeks after surgery, they were divided into two groups, the experimental group with supervised oral hygiene care and the control group who were advised to brush their teeth but with no supervision. The experimental group had little or no recurrence of Dilantin hyperplasia over the nine month period in contrast to a recurrence of gingival enlargement in each member of the control group.⁴

"The results of this nine month study on the effects of plaque in patients following gingivectomy for Dilantin hyperplasia demonstrates *again* the relationship between plaque and gingival inflammation and their possible role in contributing to the recurrence of this gingival disorder."⁴

Summary

Clearly, the dental hygienist has an extremely important role in the education of the patient for the prevention, control and treatment of Dilantin hyperplasia. Towards this goal all health professionals should cooperate.

First and foremost, the patient must be made aware of the possible side effects of Dilantin. Ideally, medical and dental personnel should work together so that the patient begins a comprehensive dental program in conjunction with starting to use Dilantin.

The dental program should include detailed plaque control information, dietary counselling to reduce the rate of plaque formation, and increased frequency of prophylaxis. One suggestion for increased prophylaxis would be on a three to four month basis for at least the first six to nine months of Dilantin usage. After this time, patient plaque control and gingival reaction would be assessed to determine subsequent recall periods. Another suggestion, depending on patient availability, would be monitoring on a bi-monthly basis with provision of prophylaxis when necessary. After several months patient recall period would be re-assessed.

Patients already exhibiting Dilantin hyperplasia should begin a preventive program (as previously outlined) before undergoing surgery to ensure that they are well established into a program for the prevention of the recurrence of Dilantin hyperplasia.

"The clinical effectiveness of such a regimen has been shown by Hall⁸ to completely retard diphenylhydantoin gingival hyperplasia if commenced prior to or simultaneous with the administration of diphenylhydantoin."²

Dental personnel, especially dental hygienists, by utilizing their knowledge and skills can effectively prevent or minimize an uncomfortable, embarrassing and unsightly condition in epileptic patients who already have enough to cope with. ■

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SCIENTIFIC PAPERS

The Origin of a Journal Article

Who writes the articles that appear in the *Canadian Dental Hygienist*? You do. The majority of articles published in the C.D.H.A. Journal are written by hygienists, for hygienists. Of course, we publish articles submitted by other members of the dental team as we hope the Journal appeals to all members of the profession.

Occasionally we include articles written for the hygienist but written by someone in another discipline.

Why write an article? A paper is written for many reasons - a requirement for a course, a desire to publish, a burning idea that needs to be expressed, and a desire to share.

What to write? Whatever interests you and you feel will be of interest to your audience. Often a topic of interest in one part of the country is a hot issue elsewhere. The Journal helps us reach each other.

Who should write? *You* should. Whichever mode of practice you have chosen, be it private practice, public health, education or "alternative", we at the Journal need to hear from you.

How should the article be written? Guidelines for article submission are published regularly. Please follow this format.

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Fran Cotton.

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All manuscripts submitted for consideration for publication should be typed on standard (8½ × 11) paper, double-spaced, with a margin allowance of at least one inch. Three copies should be sent to the editor, and the manuscript must not be submitted to another publication while under review. A title page should be included stating the title of the paper and the author's full name, degree, and position.

Illustrations:

Illustrations must be clearly defined and suitable for reproduction on a reduced scale. Each picture should include a legend and should be marked in numerical order. Graphs and drawings should be drawn in Indian ink on white paper. Photographs must be glossy prints.

Length:

The preferred length of a paper is 8-10 typed pages or 2000 words including references. Space for illustrations should be considered in the length.

Subheadings:

It is suggested that subheadings be used within the paper for the reader's benefit.

References:

References should be lined up numerically. References to journal articles should be made as follows: last name of author followed by initials; title of article with only the initial letter of first word capitalized; full journal name followed by volume, number, first and last pages of article to which you refer, and year.

Example:

Bell, G. Role of the dental hygienist in restorative dentistry. *Dental Health* 40: 139-141, 1973.

References to books should be made as follows: last name of author followed by initials; title of book with initial letters of all words, except connecting words, capitalized; publisher; city of publication; year of publication; page or pages to which you refer.

Example:

Guthrie, H.A. *Introductory Nutrition*. The G.V. Mosby Co., St. Louis, 1975: 153-156.

Notice of Acceptance:

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Textes:

Les textes doivent être remis dactylographiés à double interligne, sur papier 8½" sur 11"; toutes les marges doivent être d'au moins un pouce. Les auteurs doivent remettre un original et deux copies et le texte doit être soumis uniquement à L'Hygieniste Dentaire du Canada. Une page frontispice doit inclure le titre du texte, les noms, qualités et titres et postes du (des) auteur(s).

Illustrations:

Les illustrations doivent être claires afin que leur reproduction sur échelle réduite soit possible. Chaque illustration doit être accompagnée d'une légende dactylographiée. Les graphiques et schémas doivent être dessinés convenablement, à l'encre de Chine sur papier blanc. Les photographies doivent être des épreuves glacées; elles doivent être numérotées dans l'ordre.

Longueur du texte:

La longueur des textes devrait être de 8 à 10 pages dactylographiées ou de 2000 mots y compris les références. Les espaces pris par les illustrations doivent être inclus dans ces limites.

Sous-titres:

Les sous-titres sont recommandés afin de faciliter la lecture du texte.

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Les références doivent être numérotées. Les références à des articles de revues doivent être faites de la façon suivante: nom du (des) auteur(s) initiale(s); du (des) prénom(s), titre de l'article (seule la première lettre du premier mot doit être en majuscule); nom au long du journal, numéro du volume, pages de l'article, année.

Exemple:

Zangwill, O.L. Le problème de l'apraxie idéatoire. *Revue Neurologique*, 102: 595-603, 1960.

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Guthrie, H.A. *Introductory Nutrition*. The C.V. Mosloy Co., St. Louis, 1975: 153-156.

Avis d'acceptation:

Les manuscrits seront reconnus sur réception. Les auteurs seront avisés de l'acceptation du manuscrit avant la publication. Les manuscrits refusés seront retournés.

The following ABSTRACTS are from papers presented by Canadian hygienists at the 10th International Symposium on Dental Hygiene in Oslo, Norway, June 1986.

Anne Bosy, R.D.H.,

"Innovation for learning computers and dental hygiene"

Learning is a lifelong commitment for health care professionals such as dental hygienists. Although learning is not concentrated at the undergraduate level, it is no less important to the practicing dental hygienist who needs to upgrade her knowledge of current concepts. For the dental hygienist who left the job market for a variety of reasons and who seeks re-entry into practice, learning has unquestionable importance and necessity.

Patrica M. Johnson, R.D.H.,
B.Sc.D., M.Sc.
Carol K. Ono

The Practice of Dental Hygiene in Canada

In March 1981 the Federal government of Canada established a Working Group on the Practice of Dental Hygiene. The group was composed of eight dental hygienists and five dentists from private practice, community health and dental hygiene education, who represented all geographic regions of Canada.

A series of five papers were presented by Johnson & Ono on behalf of the Working Group. Topics included: Dental Hygiene Practice and Regulation; Description of the Working Group and major findings to date; The role of the hygienist as a consultant with the federal government; and Development of Clinical Practice Standards for Dental Hygienists.

Karen A. Kopciuk, R.D.H.,
Brenda L. Plaxton, R.D.H.,

"Health learning assistance"

The purpose of this paper is to introduce and describe an innovative and exciting approach in client communication. This Health Learning exchange is an integral part of Health Centred Dentistry and the philosophies on which is based. Areas to be explored include informed choice, establishing and developing goals for "wellness", and implementation of a Health Learning Assistance Program. Additional areas of focus include the role of the dental hygienist as facilitator, development of necessary communication skills, and the creation of an appropriate environment. The environs for dynamic Health Learning Assistance take into account both physical surroundings and an accepting, non-judgmental, and non-threatening atmosphere. This allows the client to be understood, and the needs of both the client and the dental hygiene facilitator to be met. The result is an increase in satisfaction and success for all participants.

Jennifer Thomas, R.D.H.,

"Dental Hygiene during the Treatment of Oral Cancer"

The treatment of oral cancer involves radiation, surgical and chemotherapeutic techniques. These three methods produce side effects which can involve temporary and permanent damage to the oral tissues. This paper discusses the treatment performed by the dental hygienist during radiation therapy for malignant lesions of the head and neck.

Barbara Zier, R.D.H.,
B.Ed., M.Ed.

"Interprofessional collaboration to maximize dental health education efforts"

Recognizing that dental disease is one of the most prevalent health problems in society and that disease prevention, health education and promotion are fundamental to the control of dental disease, dental hygienists must address the question of how to best maximize their dental health education efforts.

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FINANCIAL REPORT

CANADIAN DENTAL HYGIENISTS' ASSOCIATION L'ASSOCIATION CANADIENNE DES HYGIENISTES DENTAIRES FINANCIAL STATEMENTS APRIL 30, 1986

- AUDITOR'S REPORT -

To the members of
Canadian Dental Hygienists' Association
L'Association Canadienne des Hygienistes Dentaires

I have examined the Statement of Balance of Funds as at April 30, 1986 and the Statement of Receipts and Disbursements for the year then ended.

My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as I considered necessary in the circumstances, except as outlined in the following paragraph.

As is the case with most organizations which receive funds by membership fees and contributions, verification of receipt was limited to accounting for amounts as recorded.

In my opinion, except for the effect of any adjustments which might have been required had I been able to satisfy myself with respect to the revenue described in the preceding paragraph these financial statements present fairly the financial position of the Association at April 30, 1986 and the results of its operations for the year then ended in accordance with generally accepted accounting principles applied on a consistent basis.

MARY ELLEN MORRIS
CHARTERED ACCOUNTANT

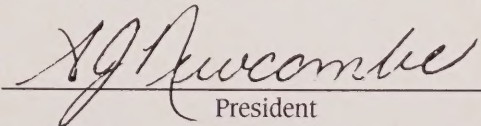
STATEMENT OF BALANCE OF FUNDS

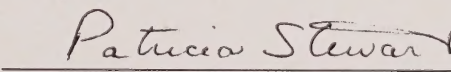
AS AT APRIL 30, 1986

(with comparative figures for 1985)

	1986	1985
Balance of funds - May 1	121,876	111,562
Add: Excess of receipts over disbursements	65,192	10,314
Balance of funds - April 30	<u>187,068</u>	<u>121,876</u>
Balance of funds is comprised as follows:		
Bank balances	88,009	58,071
Treasury bills - at cost	99,059	—
Deposit receipts	—	63,805
	<u>187,068</u>	<u>121,876</u>

SIGNED ON BEHALF OF THE BOARD


President


Treasurer

**STATEMENT OF RECEIPTS AND
DISBURSEMENTS**
FOR THE YEAR ENDED APRIL 30, 1986
(with comparative figures for 1985)

	<u>1986</u>	<u>1985</u>
RECEIPTS		
Membership fees		
Total collected	\$279,396	
Transfers to		
Provinces	(119,173)	
	\$160,223	
Provincial cost sharing	14,050	
(Period Jan 1/85-Dec 30/85)		
Provincial cost sharing	11,234	
(Period - prior Jan 1/85)		
Interest	12,969	
Fees - corporate mailings	4,510	
Insurance rebate	4,567	
Convention profit	4,034	
Posters	233	
Repayment - convention		
advance	2,154	
"The Canadian Dental		
Hygienist"	30,240	
	<u>\$244,214</u>	<u>\$195,935</u>

**STATEMENT OF RECEIPTS AND
DISBURSEMENTS**
FOR THE YEAR ENDED APRIL 30, 1986
(with comparative figures for 1985)

	<u>1986</u>	<u>1985</u>
RECEIPTS - forward	<u>\$244,214</u>	<u>\$195,935</u>
DISBURSEMENTS		
Salaries and benefits	\$ 38,254	
Membership campaign & processing		
Labour	\$10,280	
Campaign costs	11,210	
		21,490
Central office administration		
Printing and photocopying	4,839	
Postage	5,477	
Office equipment and supplies	4,589	
Rent	3,600	
Telephone	2,154	
Professional fees	1,125	
Subscriptions	265	
Insurance	380	
Miscellaneous	484	
		22,913
Travel		
President	1,444	
Executive Council	1,870	
Other	3,615	
		6,929
Annual general meeting of the board		15,276
Convention		3,200
Committees		6,533
Donations and honoraria		
Donations	4,781	
Honoraria	6,000	
		10,781
"The Canadian Dental Hygienist"		
	53,646	
	<u>179,022</u>	<u>185,621</u>
EXCESS OF RECEIPTS OVER DISBURSEMENTS	<u>\$65,192</u>	<u>\$10,314</u>

NOTES TO FINANCIAL STATEMENTS

APRIL 30, 1986

1. SIGNIFICANT ACCOUNTING POLICIES

The Association follows generally accepted accounting principles in the preparation of its financial statements except as outlined below where the disclosed basis of accounting is considered to be appropriate.

Fixed Assets

Office equipment and furniture are expensed entirely in the year of purchase.

Receipts and Disbursements

The Association continues to report its financial information on the receipts and disbursements basis which results in only those amounts which were actually received or disbursed during the fiscal period being reflected in the financial statements.

2. TREASURY BILLS

The Treasury bills in the amount of \$99,059 are made up as follows:

Purchase date	Cost	Date of Maturity	Interest Rate	Value at Maturity
Feb 24/86	\$49,608	May 23, 1986	11.25	\$51,000
April 4/86	\$49,451	May 16, 1986	9.65	\$50,000

3. COMMITMENTS

The Association operates from leased premises under the terms of a 4 year lease ending December 28th, 1988. The Association is committed to make rental payments of \$3600 per year plus a proportionate share of operating costs. The Association also rents office equipment and is committed to make the following rental payments:

Photocopier 65 month lease ending April 30, 1990 at a cost of \$1746 per year.

Mailing equipment 60 month lease ending September 30, 1990 at a cost of \$1508 per year.

4. INCORPORATION

The Association applied for and was granted on July 2, 1985 letters patent dated January 15, 1985 under the Canada Corporations Act. The incorporated name of the Association is now:

CANADIAN DENTAL HYGIENISTS' ASSOCIATION
L'ASSOCIATION CANADIENNE DES HYGIENISTES
DENTAIRE

5. CONTINGENT LIABILITY

On September 1, 1985 the Association entered into an agreement with the Minister of National Health and Welfare to conduct a project entitled "Oral Health Resources for the Elderly."

The Ministry proposes to fund this project to a maximum of \$95,000 during the two year period ending September 1, 1987. Although the project is carried out under the auspices of the Association the funds are administered independently of the Association's general operations. The Association representative responsible for the project reports directly to the Ministry.

Since any unexpended funds must be returned upon completion of termination of the project the related receipts, disbursements and balance of funds have not been reflected in these financial statements.

If it were determined by the Ministry that any of the funds advanced had not been spent in accordance with the terms and conditions of the agreement the Association could be liable for reimbursement of these amounts from their general operating funds.

6. COMPARATIVE FIGURES

During the year the reporting format used in the Association's financial statements has been revised. Due to these revisions, it is impractical to provide detailed comparative figures for the statement of receipts and disbursements.

Facts

about Dental Hygienists

1

Dental hygienists are licensed health care professionals concerned primarily with the prevention of dental disease. Hygienists are responsible for providing education and treatment that helps prevent periodontal disease (gum disease) and dental caries (cavities). As members of the dental team, hygienists work with patients to achieve and maintain optimum oral health.

2

The first dental hygiene program was established in Canada in 1951. From the first graduating class of less than 10, the number of hygienists has grown rapidly over the past years so that today there are approximately 6000 dental hygienists across the country.

3

The education of dental hygienists, which requires a minimum of 2 years study after senior matriculation, emphasizes basic sciences, (chemistry, biology, nutrition, anatomy and physiology) and communications. Students develop the specific clinical skills necessary to provide preventive dental health services to the public. Dental hygienists are eligible to apply for provincial licensure after graduation from a recognized education program. Licensed dental hygienists practice in accordance with provincial health care legislation.

4

Although dental hygiene duties vary from province to province, some of the functions routinely performed by dental hygienists include:

- examining and charting oral conditions
- exposing and processing dental x-rays
- removing plaque, stain, and calculus (tartar) from above and below the gumline
- applying decay preventing agents such as fluorides and fissure sealants to teeth
- plaque control instruction and development of individualized oral hygiene program for home care
- analysing and counselling in dietary matters
- educating individual patients, the general public and special population groups: seniors, minority, handicapped people
- planning and coordinating dental health programs in the community

In some provinces, dental hygienists with additional education, may provide other

services such as administering local anaesthetic, placing and carving filling materials and additional periodontal procedures.

5

Dental hygienists work in a variety of practice settings including:

- private dental offices
- community clinics
- hospitals and chronic care facilities
- federal, provincial and municipal health departments
- armed forces
- correctional institutions
- research
- post secondary education

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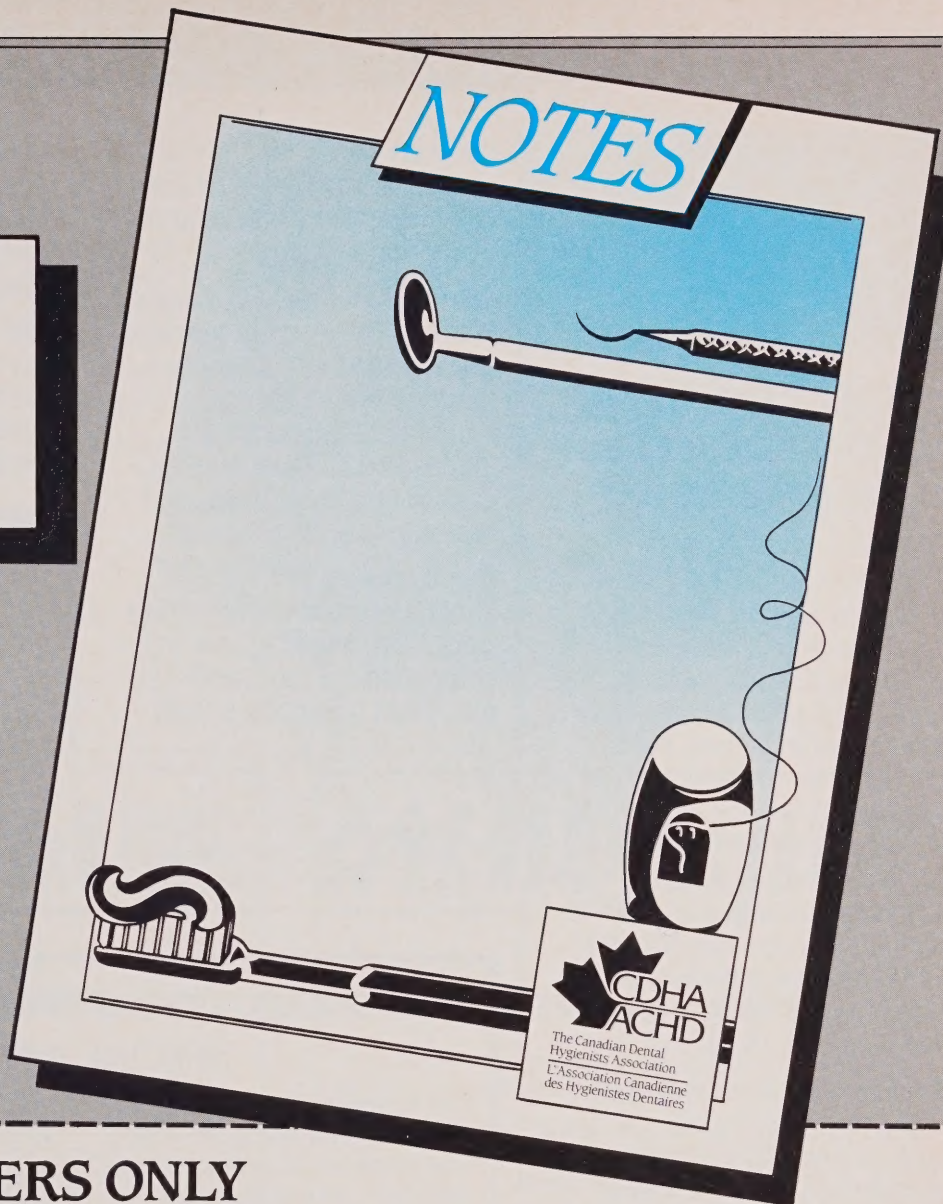
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BOOK REVIEW

Health and Welfare Canada
Health Services & Promotion
Branch
1985
\$4.95 (also available in
commercial bookstores)

This "Teacher's Guide" is excellent for parents too

This book is billed as a "Teacher's Guide" for grades K-12. It is also a good publication for parents. There's little, if anything, that is new to an oral health care professional such as a dental hygienist, but it would be worth having a few copies of this book around for waiting room reading, handouts in the office, community centres or schools. At \$4.95 a copy, this 8½ by 11 soft cover text may be a bit pricey as a give-away, but it sure is worth a look.

It's a book that's easy to read, well put together and well-written. This text presents a wonderfully creative way to ease children (and parents) into the vocabulary of dentistry. The authors are not afraid to call gingivitis just that ...and prophylaxis is prophylaxis.

The Guide is divided into lesson format with the appropriate age/grade level suggested for each topic. The objective of the lesson is clearly stated and the teacher is given lesson 'content' directions. 'Suggested Learning Activities' complete

the sections. These activities are geared to grade level and include demonstrations and research suggestions.

Lesson topics include 'Dental Plaque', 'The teeth' (a primary level lesson in anatomy and tooth function), 'Dental Consumer Decisions' (for grades 10-12), 'How Students Can Protect Their Teeth', and others.

Diet habits are studied and illustrations show everything from toothbrushing to a comparison of teeth and machines. The book is well

appendix with extra space given to topics such as the 'History of Sugar in the Diet', 'Cancer', 'Orthodontics', and 'Fluoridation'.

This is an excellent text overall. The current available book is a 1985 reprint of 1981 material published by Health and Welfare Canada.

Reviewed by Elizabeth McKee

THE ONTARIO DENTAL HYGIENISTS' ASSOCIATION SPECIAL MESSAGE

The Government of Ontario has issued a challenge to the health care professions to demonstrate that they can regulate their professions in a fair and effective manner which puts the public interest first.

The Issue:
Responsible, Representative
Regulation of dental hygienists
by dental hygienists to insure

effective delivery of dental
hygiene care to the public.

The problem:
Dental hygienists have no voting
representation in the regulation of
their profession i.e. supervision

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tive process to determine the
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Ottawa, Ontario
K1Z 7K9

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Contact:

C.D.H.A.
Attention: Oshawa
1320 Carling Ave.
Ottawa, Ontario
K1Z 7K9

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Dr. Marke Pedersen
#102 3401 33rd St.
Vernon B.C.
V1T 7X7
Phone: 604-545-3319



Calgary
Health
Services

SUPERVISOR DENTAL HYGIENISTS

Calgary Health Services

Applications are invited for the position of Supervisor of Dental Hygienists with the Calgary Health Services, Dental Division.

Responsibilities:

The incumbent will be responsible for the administration of the dental hygiene program which includes a preventive clinical component and a large education component.

In particular, the incumbent will assume responsibilities as follows:

- design, implementation, supervision and evaluation of the dental hygiene program
- selection, supervision and evaluation of dental hygiene staff
- maintenance of statistical records and preparation of routine and special reports
- liaison with community agencies, in particular school systems
- provision of education and clinical services as a back-up
- other related activities

Qualifications:

Minimum qualifications include diploma from accredited Dental Hygiene program and considerable related experience. Applicant must be eligible for certification by the Coordinating Council of the University of Alberta. Preference will be given to applicants with a Masters degree in education or health-related area and with experience in administration. Preference given to non-smokers.

Salary:

Salary commensurate with qualifications and experience, and is presently under review.

Qualified applicants are invited to submit applications or resumés in confidence to:

Director, Dental Services
Calgary Health Services
P.O. Box 4016, Station "C"
320 — 17 Avenue S.W.
Calgary, Alberta T2T 5T1
Telephone: (403) 228-7410



Calgary
Health
Services

DENTAL HYGIENISTS

Applications are invited for the position of Dental Hygienist with the Calgary Health Services, Dental Division.

Responsibilities: Clinical, educational and community activities in the Preventive Dental Health Program.

Qualifications: Graduation from a recognized School of Dental Hygiene and certification by the Universities Co-ordinating Council, University of Alberta.

Salary: Salary range approximates \$1,903.00 — \$2,295.00 per month. (\$22,838.00 — \$27,536.00 annually). Presently under review.

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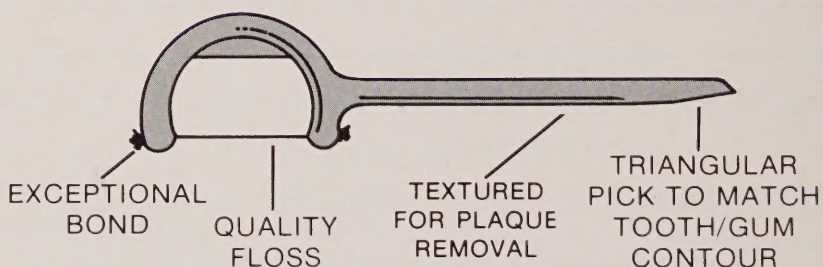
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volume 21, no. 1

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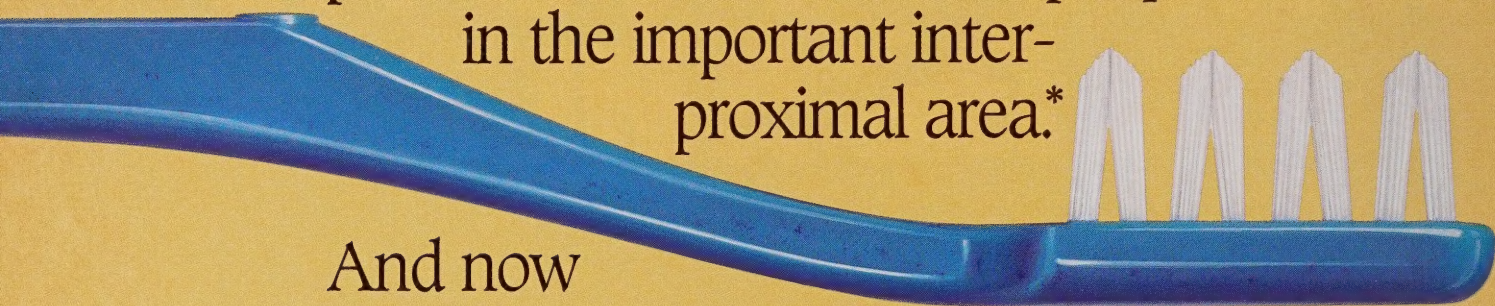
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"Access to interproximal tooth surfaces by different bristle designs and stiffness of toothbrushes." Per Nygaard-Ostby et al., Jordan, Oslo, Scand. J. Dent. Res. 1979.

"An in vitro study of the relative effectiveness of toothbrush cleaning/coverage." Sam. L. Yankell, University of Pennsylvania, J. Dent. Res. 1979.
"Role of brushing technique and toothbrush design in plaque removal." Axel Bergenholtz et al., University of Umea, Scand. J. Dent. Res. 1984.

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PRESIDENT'S MESSAGE

Thank you to each one who has devoted time and talent to the Association! Because of you the past few months have been very productive!

On the "National Scene", Executive Council members and central office staff have been heavily involved in dental hygiene business. The membership campaign is going well and our National survey is on target. The survey must be supported by every hygienist in Canada (working or not) if it is to reflect the workforce accurately. Please make a concerted effort to report accurate addresses to your membership chairman so that we are able to contact every hygienist including 1987 graduates and hygienists who are not members of associations.

In January I attended a meeting in Montreal of the C.D.A. Professional Resource Utilization Committee and Deans of Canadian Faculties of Dentistry where Economist, Dr. R.K. House predicted a serious oversupply of dental personnel by the year 2006. C.D.A. has asked all groups to consider taking action to reduce the potential oversupply. Dr. House also acknowledged the substantial economic contribution of dental hygienists to the dental practice.

I took the opportunity to meet again with Q.D.H.A., while in Quebec and I am very pleased to inform you of the great strides they are making in re-organization! A Parliamentary Procedures Workshop is planned in conjunction with Les Journees Dentaires Meeting in May, and Q.D.H.A. is working on a new Handbook!

Executive Council met in Manitoba in January following the M.D.H.A. Mid-Winter Meeting. We were pleased to be invited to attend the Scientific Session and to visit the School of Dental Hygiene, University of Manitoba. The Dean, U. of M. hosted a reception for C.D.A. and C.D.H.A. visiting dignitaries which provided an opportunity to meet with students and faculty.

The next C.D.H.A. Executive Council visits will take Ellen Brownstone, President-Elect to the Maritimes. A Panel Discussion on the Future of Dental Hygiene Practice (with Ellen, Professor Marnie Forgay, Dalhousie University, Dr. John Robertson, President C.D.A.

and Dr. Romkey) is scheduled for March 25, in Charlottetown. I trust this event will be well attended with Audrey Newcombe, C.D.H.A. Public Relations Officer at the helm!

Our meeting with A.D.H.A. in Chicago is this week. On the agenda are discussions re professional development, public relations, member services, governmental affairs, public health, national certification and economics. A.D.H.A. being a more "mature" association, should be able to furnish us with valuable information. They have offered us their complete support!

Coming up are the Interim Board Meeting for C.D.H.A. in Ottawa, April 4th & 5th, (preceded by the C.D.A. Board of Governors' Meeting) and the Steering Committee for National Certification Meeting in Winnipeg, April 17th. We are finding a great deal of support for a national process which would promote portability.

I will meet with B.C. hygienists in May, and there I hope to learn of issues concerning our members in the Pacific Rim.

Please write to us in central office if you have concerns regarding our profession. Only with direct and open communication can we hope to meet your needs! ■

Dianne Gallagher
President
C.D.H.A.

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References: 1. LAMSTER, I. et al.: Clin. Prev. Dent., 6:12 (1983).
2. MENAKER, L. et al.: Ala. J. Med. Sci., 16:71 (1979).
3. ROSS, N.M. et al.: Warner-Lambert research report #955-0875 (1976).
4. YANKELL, S.L., et al.: Warner-Lambert research report #955-0893 (1976).

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OPINION

Who are we? And where are we going?

Who are we? We are dental hygienists, of course! If a stranger were to ask us what role the hygienist plays in the health care of Canadians, there would probably be as many answers as there are respondents. The practice of dental hygiene means something different to each one of us. Dental hygiene has many faces. If you have been follow-

ing the Alternatives section in the Journal, you will have read about hygienists who have chosen to pursue dental hygiene in areas other than the more traditional roles of private practice and/or public health. There are also hygienists who are pursuing careers in other fields, some directly related to dentistry, and some which are not. Let's hope their hygiene background has served them well.

Private practice has traditionally been the major employer of dental hygienists in Canada, followed by public health and educational settings. Often, when we highlight hygienists in print, it is those hygienists who are outside the traditional

mode of practice, but it is the "grass-roots" private practitioner who is the backbone of the profession and of our professional organization. The C.D.H.A. is hygienists, and the majority are in private practice.

Later this Spring The Canadian Dental Hygienist Study will arrive in your mailbox. This survey will be sent to every hygienist in Canada, whether or not they are a member of C.D.H.A. and whether or not they are currently licensed to practice. The results from this study will provide an accurate profile of who we are and where we are going. This survey will provide each and every hygienist with the unique opportunity to provide

Even After Brushing
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concrete input into their chosen field. Every hygienist is encouraged to participate and to encourage their colleagues to participate. A high response rate is important. Data from the study will indicate where and how Canadian hygienists have chosen to practice hygiene. Demographic data will indicate personal profiles, geographic location and trends of practice. With future follow-up studies, we also hope to determine why some hygienists choose careers apart from dental hygiene.

Perhaps the most important information (at least from this writer's viewpoint) will be *how* we practice hygiene. The myth that hygienists "scrape teeth"

for a living may finally be put to rest along with the "cleaning lady" and "working for pin money" concepts! There really are people, dentists included, who feel that the ability to scale teeth is what constitutes the practice of dental hygiene. We know otherwise, but we are the ones who must furnish the information and the statistics to back up our desire for a more collaborative arrangement with other health care providers.

Do you remember why you chose to enter dental hygiene? Do you feel that your education prepared you adequately for what you do? Do you know what motivates you professionally? Do you know what motivates other hygienists? Let

your opinions be heard, reply to the survey.

Follow the Journal to read the results. Then hopefully, the next time a stranger asks about dental hygiene, we'll have the facts. We will know who we are and where we are going!! ■

Fran Cotton

"My patients get plenty of fluoride from brushing and other sources. Why on earth would I recommend a fluoride rinse?" We understand your doubts. But the accumulation of evidence from independent clinical studies* has become so persuasive, we believe it will overcome your skepticism.

EVIDENCE OF ADDED PROTECTION.

Reviews of numerous independent studies^{1,2,3} have concluded that a fluoride rinse enhances the (caries-reducing) effects of fluoride dentifrice. Additionally, repeated applications increase prophylactic value. Studies have also shown⁴ that a fluoride rinse reduces caries among people receiving optimal water fluoridation.

LISTERMINT REVERSES THE EARLY STAGES OF TOOTH DECAY.

You are probably aware that fluoride dentifrice is effective in reversing the early stages of tooth decay. Listermint with Fluoride** has been proven



BEFORE



AFTER

The dark shadow shows weak spots (decay) before and after treatment with Listermint with Fluoride.

to work the same way.⁵ It acts to accelerate the remineralization of white spot lesions, reversing the demineralization process.

RECOGNIZED BY THE CDA.†

Listermint with Fluoride has earned the Canadian Dental Association Seal of Recognition.

†Listermint with fluoride contains sodium fluoride which is, in our opinion, an effective decay preventive agent, and is of significant value when used in a conscientiously applied program of oral hygiene and regular professional care. The Canadian Dental Association.*



YOU AND LISTERMINT WITH FLUORIDE.

We do not suggest that you recommend Listermint with Fluoride as a substitute for other sources of fluoride. But because most adults use a mouthrinse, and are susceptible to cavities, doesn't it make sense that they use a mouthrinse that gives their teeth extra protection?

We welcome your comments and inquiries.*

*Please contact the Director of Professional Services, Warner-Lambert Canada Inc., 2200 Eglinton Ave. E., Scarborough, Ontario M1L 2N3.

**neutral pH, 0.22 mg/mL of sodium fluoride (100 ppm fluoride ion) 1. Torell, P.; Ericsson, Y.: Int'l workshop on fl/dental caries red. (1974). 2. Ripa, L.W. JADA 102:477-481 (1981). 3. Birkeland, J.M.; Torell, P. Caries Res. 12 (Suppl 1), 38-51 (1978). 4. Driscoll, W.S.; Swango, P.A.; Horowitz, A.M.; Kingman, A. JADA 105:1010-1013 (1982). 5. Koulourides, T. Data on file Warner-Lambert Canada Inc. 1985.

PAAB
CCPP

Butler



NOTHING WORKS BETTER THAN A BUTLER G·U·M® TOOTHBRUSH

...NOTHING.

The Butler G·U·M toothbrush doesn't have an angle. Not in its head. Not in its handle. Along with a lot of other gimmicks (shown in this collection of antique toothbrushes), angles have been tried before and found wanting.

The Soft Butler G·U·M toothbrush was designed by a dentist and refined in our own laboratories. Careful attention to detail makes the handle, head, and bristles work better and harder. The handle is large and easily managed. The head is rounded to contact molar areas unimpeded and the dome-shaped trim allows bristles to reach deep into sulcus without bunching up. Bristles are satinized, rounded and tapered with original Butler exclusive process to provide interdental penetration without traumatizing tissue. The Butler G·U·M brush works to remove plaque without chemicals. It works to reduce and prevent gingivitis. It works to keep gums healthy. These are the facts that have been proven by actual dental studies.

Doctor, the next time you dispense a toothbrush, don't be misled by all the angles. Choose the brush that has proven to work—the Butler G·U·M.



Butler



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Phone: Toll Free 1 800 265-8353
In Ontario and Quebec 1 800 265-7177 (except AC 418)
Service en Français 1 800 265-7203

LETTERS

To The Editor:

Your new look (*Probe*, September 1986) is appealing because of its "clean" easy-to-read presentation. This issue had an attractive cover and was both professional and informative throughout.

Josephine Juchli
Edmonton, Alberta

To C.D.H.A. Members:

As an extension of our updated format – color, lettering, article headings, categories, etc. – it was also suggested that another name be considered for the Journal. One that appealed to the Editorial Committee was a name currently used by the Alberta Dental Hygienists' Association. The name *PROBE* was chosen by the ADHA Board of Directors by way of a province-wide competition. The decision to choose the name *PROBE* was made for the following reasons:

1. the word "probe" reflects inquiry – searching out new frontiers.
2. a probe is the main diagnostic tool of the clinical dental hygienist and therefore dental hygienists would relate to the name immediately forming an identity with other dental hygienists nationally.
3. the word "probe" reflects the quest for continued growth within a dynamic profession.
4. since a professional journal is a source of continuing education for its members, the name *PROBE* is apt in that it implies critical inquiry

from which balanced judgement should ensue – this denotes the truly professional and scientific person.

The choice is yours – the members of CDHA! Do you want to stay with the traditional and familiar or do you wish to "probe new frontiers"

through the vehicle of our professional journal?

Write to us – let your provincial CDHA director know!

Laura Mowat
CDHA/ADHA

CDHA BOARD OF DIRECTORS



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FINANCE

The deadline for filing your tax return is April 30, 1987. This does not prevent you from filing it earlier. Last year, I had my refund in hand by March and could have had it collecting interest (if I did not spend it that is). The turnaround time for refunds is reduced if you get a head start on all those April 30 procrastinators. Tax credits aside, this refund is your money, for which the federal government has had the interest-free use.

By correctly filling out a TD1 form, which is filed by your employer, you can minimize tax overpayments during the year. Even if you owe money, a postdated cheque can be enclosed with a return mailed earlier. To ease the pain, you can apply one spouse's tax refund to the amount payable by the other. On a personal note, an attempt to do this was unsuccessful and we received the refund and a bill.

Many of you will find your tax payable reduced due to child

care deductions for your children. For working parents, the child care deduction allows an exemption for the cost of child care expenses.

Unfortunately, the upper limit is \$2,000 per child, which is often far less than the actual cost involved. The total family limitation is \$8,000 or two-thirds of earned income. These provisions usually apply to the parent (or supporting individual) with the lowest income. An exception is made for illness, separation, imprisonment, or full-time educational attendance (at a designated institution). During this period, the person with the highest income can claim the child care deduction.

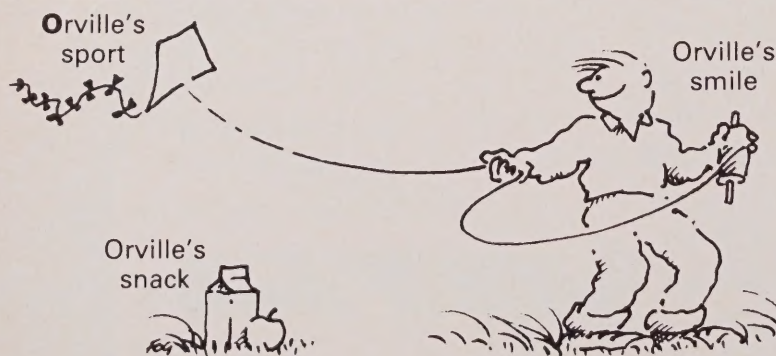
Eligibility for the child care deduction, includes any child, under the age of fourteen, who has been claimed as a dependent by you or your spouse. The age limit is waived in the case of disability. If you are supporting a child who is a relative, check with Revenue Canada to see if you can claim child care expenses.

Receipts do not have to be filed with your tax return, but you should keep them in case they are requested. If you used a private babysitter, be sure to get the social insurance number and have them sign a receipt specifying the amount and date of the payment. If you are working during the summer, do not neglect to make a deduction for summer camp expenses. Up to sixty dollars per week per child can be claimed. The same rule applies for boarding school during the year.

A divorce or separation during the year, complicates determination of deductions for the children. The definitions of "supporting person" and "eligible child" under the Income Tax Act must be taken into account. You can check the booklet accompanying the income tax return or contact your local Revenue Canada office for clarification. Work with your spouse to minimize taxes payable. If your situation is complicated, you may wish to seek professional advice for this.

Revenue Canada will fill out your return for you if you are unable to do so. The risk in doing this is that it will not always be done to your advantage. Many provincial and federal tax credits have to be applied for by you when filling out your tax return. Read the booklet carefully and do not hesitate to call Revenue Canada for clarification. ■

Dianne Tivy
Business Manager



PARTICIPATION MAKES PERFECT



National Dental Health Month April 87

Two years of hard work has resulted in the excellent package "Smile For Life". The Canadian Dental Hygienists' Association in conjunction with Health and Welfare Canada, is now distributing it to the older public.

We need your help. The success of this project depends on promotion of it at local and regional levels. We encourage you to get actively involved in distributing the resource package and promoting its utilization. Here are some ways to get involved:

You could make the package a focus for a health care presentation to community groups.

- Women's Institute Legionnaires, Legion Auxiliaries, senior citizen clubs, Rotarians or Kiwanis.

OR to other health care professionals.

- nurses
- physio or occupational therapists
- pharmacists
- doctors

OR you may wish to organize a mini health fair in places that are used by the elderly.

- community centers
- medical centers
- manors
- hospitals

OR

Contact your local senior citizen residence and ask if you may pay a visit. You could talk to staff and residence in a group or individually, dis-

cussing the resource package and helping them utilize it.

Work alone or in groups, make a single visit or visit as many groups or forums as you want. We want all the hygienists to share the pride in this project and share the project with as many older adults as possible!



Members of the Canadian Dental Hygienists' Association will each be receiving a copy of "Smile...for Life", a dental guide for older adults, this coming March.

DENTAL GUIDE FOR OLDER ADULTS



ORDER FORM

Smile...for Life

To receive **Smile...for Life**, complete this form and mail to: CDHA/ACHD, 1320 Carling Avenue, Ottawa, Ontario K1Z 7K9.

This dental guide for older adults contains valuable information that can improve dental health and instill good dental habits. It has been prepared by the Canadian Dental Hygienists' Association, and with the assistance of the Health Promotion Contribution Program, Health and Welfare Canada.

NAME

ORGANIZATION

ADDRESS

CITY

PROVINCE

POSTAL CODE

NUMBER OF COPIES REQUIRED.

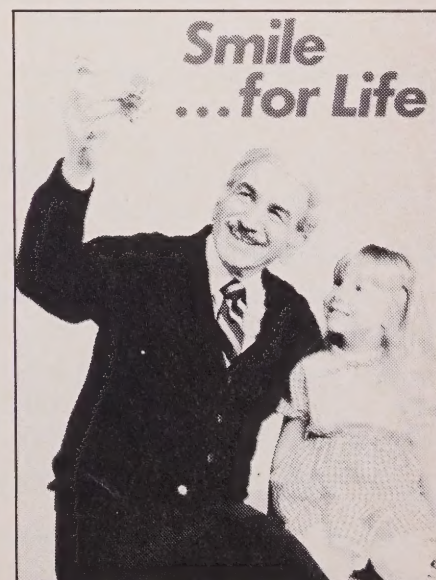
If more than 25 copies are required, please attach a letter describing the intended use.

Are you a caregiver to older adults; for example, a professional or volunteer medical/dental practitioner, or responsible for the personal care of a family member? ☐ Yes ☐ No

Complete this order form and mail to:

Canadian Dental Hygienists' Association
Association Canadienne des Hygiénistes Dentaires

1320 Carling Avenue
Ottawa, Ontario K1Z 7K9



Come to Toronto

The ODHA Annual Spring Meeting will be held May 10th to 12th in Toronto.

Monday May 11th:

Speaker — Ms. Sheryl Feller, RDH, MBA, CMC

Topic — "Looking Ahead" — Professional and Personal Development

This one day program will allow participants to assess their current work situation and levels of job satisfaction; consider alternatives for their personal and professional development; and develop a preliminary personal plan of what is ahead.

Tuesday May 12th:

Topic — Alternative Careers in Dental Hygiene

Several prominent hygienists from throughout Ontario will

discuss the profession of Dental Hygiene in Industry, Administration, Geriatric and Institutional Dentistry, Bachelor of Science in Dentistry, Public Health, Retail Dentistry and the Canadian Armed Forces.

*Also featuring Bev Timgren, RDA speaking on her adventures and clinical experience in Lebanon.

For further information contact O.D.H.A., 212-237 Locke St. S., Hamilton, Ont. L8P 4T4

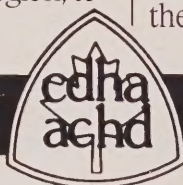
Atlantic Seminar

March 25th, 1987, the Canadian Dental Hygienists' Association will host its' first regional development seminar in Charlottetown, P.E.I. The purpose of the seminar will be to bring CDHA to the region, to

promote the profession of dental hygiene and the association. The theme for this first experimental seminar is "Dental Hygiene, Past, Present and Future". We have compiled a panel of speakers well versed in the practice of dental hygiene. The invited panelists are Prof. M.G.E. Forgay, Director School of Dental Hygiene, Dalhousie University; Prof. Ellen Brownstone, Director School of Dental Hygiene, University of Manitoba; Dr. John Robertson, President Canadian Dental Association; Hon. Keith Milligan, Minister of Health and Social Services, Province of Prince Edward Island. Other speakers may be in attendance, but have yet to be confirmed.

This seminar offers a challenging intellectual format for the discussion of the role of the dental hygienist.

GUIDE DENTAIRES POUR ADULTES DE L'ÂGE D'OR



BON DE COMMANDE

Sourions ... à la Vie

Pour recevoir la documentation de **Sourions à la Vie**, il suffit de compléter ce bon de commande et de l'envoyer à CDHA/ACHD, 1320 Carling Avenue, Ottawa, Ontario K1Z 7K9.

Ce guide dentaire pour adultes d'âge d'or contient renseignements et des conseils précieux pour vous aider à améliorer vos habitudes de santé dentaire. Il a été préparé par l'Association des Hygiénistes dentaires Canada, avec l'appui du Service de Promotion de Santé, Santé et Bien-être Canada.

NOM

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VILLE

PROVINCE

CODE POSTAL

NOMBRES D'EXEMPLAIRES REQUIS.

Si vous commandez plus de 25 exemplaires, veuillez joindre à la commande une lettre justificative.

Etes-vous responsable de soins pour adultes d'âge d'or (i.e.: un professionnel de la médecine ou de la santé dentaire) ou vous occupez-vous d'un membre de votre famille? ☐ Oui ☐ Non

Retournez ce bon de commande dûment complété à:

L'association Canadienne des Hygiénistes Dentaires
The Canadian Dental Hygienists' Association

1320 Carling Avenue
Ottawa, Ontario K1Z 7K9



In response to the needs of our members, **The Quebec Dental Hygienists' Association** is offering a continuing education session on:

Hazards of the Dental Hygiene Profession: Wrist and Back Problems

Presented by: Sarah C. Marshall, B.Sc. (P.T.)

Summary:

- 1 - Overview of the anatomy of:
 - the wrist
 - the back
 - the neck
- 2 - Review of physiological bases of:
 - inflammation
 - strains
 - muscle spasm
- 3 - Major orthopedic problems:
 - carpal tunnel syndrome
 - disc disease (neck and back)
 - back ache
 - pinched nerves
- 4 - Solutions to problems:
 - R.I.C.E.
 - bad habits
 - good positions and habits
 - practical examples (with demonstration)
 - maintenance exercises

When:

March 21st 1987

9:00 to 10:00

QDHA general meeting - What is QDHA doing for you the member?

10:30 to 1:30 pm

Continuing education session

Where:

Jewish General Hospital -
Sir Mortimer B. Davis
3755 Chemin de la Côte

Ste-Catherine Block amphitheatre, pavillon A - 106
Montreal

Fees:

Tarifs:

Early registration (before February 20th '87)	
Pré-inscriptions (jusqu'au 20 février '87)	Late registration Inscription sur place

QDHA MEMBERS	
Membres de l'ADHQ	
\$20.00	\$30.00
Student members	
Membres étudiants	
\$5.00	\$10.00
NON members	
Hygiénistes non-membres de l'ADHQ	
\$35.00	\$45.00
Student non members (with identification card)	
Étudiants non-membres de l'ADHQ (la carte d'étudiant sera exigée)	
\$10.00	\$15.00

Dans un souci de mieux répondre aux besoins de ses membres, l'**AHDQ** offre une séance d'éducation continue sur:

(Prévention de maladie professionnelle chez l'hygiéniste dentaire: problèmes au dos et aux poignets)

La conférence sera donnée en anglais. Un document-synthèse sera disponible en français.
Conférencière: Madame Sarah C. Marshall, physiothérapeute (B. Sc. P.T.)

Sommaire de la conférence:

- 1 - Notions d'anatomie sur:
 - le poignet
 - le dos
 - le cou
- 2 - Revision de la physiologie de base sur:
 - inflammation

- étirements musculaires
- spasmes musculaires
- 3 - Problèmes orthopédiques majeurs:
 - syndrome du tunnel carpien
 - maladie des disques (dos et cou)
 - douleur au dos
 - nerfs coincés
- 4 - Solutions aux problèmes:
 - R.I.C.E.
 - mauvaises habitudes
 - bonnes positions et habitudes
 - exemples pratiques (avec démonstrations)
 - exercices de maintien

Date de la conférence:

Samedi 21 mars 1987

Lieu:

Hôpital Général Juif-
Sir Mortimer B. Davis
3755 Chemin de la Côte
Ste-Catherine
Pavillon A-106
(Amphithéâtre)
Montréal

La conférence sera précédée d'une réunion générale d'information sur: Les activités actuelles de l'AHDQ pour ses membres.

Heure:

9:00 à 10:00

Réunion d'information pour les membres de l'ADHQ

10:30 à 13:30

Conférence

Faire votre chèque à l'ordre de: A.H.D.Q.
le retourner à
445 Jean-Talon O.
Montréal, Qué.
H3N 1R1

Please send your cheque to:
QDHA
445 Jean-Talon O.
Montreal, Que.
H3N 1R1

Health and Welfare Canada

HEALTH SERVICES AND PROMOTION BRANCH, has made available copies of the following publications:

1. **Achieving Health For All:**
A framework for health promotion
The Honourable Jake Epp
Minister of National Health & Welfare
2. **A Review of Dental Research in Canada**
Report of the Working Group to the Medical Research Council, Health & Welfare Canada & the Facilities of Dentistry in Canada
March '86
3. **Dental Health – A Teachers Guide K - 12**
– a promotional pamphlet for the Guide

Health and Welfare Canada
Health Services and Promotion Branch,
Jeanne Mance Building
Tunney's Pasture
Ottawa, Ontario K1A 1B4

World Health Organization Fellowships

OTTAWA – Details of the annual World Health Organization (WHO) competition for fellowships for Canadian citizens wishing to undertake short-term studies abroad were announced today by the Department of National Health and Welfare.

All health personnel in medical, paramedical and health related fields, including

veterinarians and veterinary assistants, dentists and dental auxiliaries, engineers in the field of sanitary science, laboratory technologists, nutritionists, rehabilitation specialists as well as teachers and administrators in all of these fields are eligible to apply; those engaged in pure research, undergraduate and graduate university students are not.

Applicants for WHO fellowships will be rated by a Canadian Selection Committee on the basis of experience, education, proposed area of study, field of activity and the intended use of their newly acquired knowledge.

The final decision for the award of a fellowship, as well as the proposed area of study, rests with WHO.

Applications should be submitted before June 30, 1987. Further information and application forms can be obtained by writing to:

WHO Fellowships
Intergovernmental and
International Affairs
Branch
Department of National
Health and Welfare
Jeanne Mance Building
Tunney's Pasture
OTTAWA, Ontario K1A 0K9

Ref.: Bonnie Fox-McIntyre
Tel.: (613-957-1390)

Également disponible en français

Requirements for Registration of Dental Hygienists in British Columbia

(approved by Council
November 29, 1986)

1. Without examination:

Graduates of dental hygiene educational programs approved by the Canadian Dental Association or the American Dental Association are eligible for registration without examination by the College if they apply for registration within five years of graduation and if they have successfully completed all examinations required to be taken as a condition of licensing in the Province or State in which they completed their dental hygiene educational program.

2. With examination:

(a) Graduates of dental hygiene educational programs approved by the Canadian Dental Association or the American Dental Association and who are not otherwise covered by paragraph 1 are eligible for registration upon application and after successful completion of College examinations (written and clinical).

Note:

Graduates in this category will be exempt from the written examination of the College if they apply for registration within five years of successfully completing the dental hygiene examination of the American Dental Association National Board Dental Hygiene Examination.

(b) Graduates of dental hygiene educational programs which are not approved by the Canadian Dental Association or the American Dental Association are eligible for registration after successful completion of College examinations (written and clinical).

3. Administration of local anaesthesia

(a) Applicants for registration as dental hygienists are required to show satisfactory evidence of successful completion of a training program in administration of local anaesthesia approved by the College.

Applicants not qualified for registration under 3(a) may be eligible for a permit to practise dental hygiene until either that requirement is met or until the expiration of the then current licence year, whichever first occurs.

Dental hygienists must be registered and licensed by the College prior to practising in British Columbia.

For more information contact:
Dr. G.R. Thordarson
Registrar
College of Dental Surgeons of
British Columbia
1125 West Eighth Avenue,
Vancouver, B.C. V6H 3N4
Area Code 604-736-3621

Editors Note

This provides dental hygienists, who have graduated within 5 years from a C.D.A., accredited dental hygiene program, national portability in 9 provinces and both territories (Ontario excluded).

Help Dental Hygiene Grow Through Research

Attend the Second National Dental Hygiene Research Conference

July 16-18, 1987
Iowa City, Iowa

The second National Dental Hygiene Research Conference is a result of interest and enthusiasm generated within the profession for development of theories and knowledge that focus on dental hygiene practice. The conference, co-sponsored by the American Dental Hygienists' Association and The University of Iowa, Department of Dental Hygiene, is designed to include two tracks: one for those beginning research and one for the advanced researcher. The following objectives have been developed for conference participants:

- Comprehend the manner in which knowledge is organized and expanded.
- Evaluate the current and future position of dental hygiene as an owner of a body of knowledge.
- Apply principles of theory building to dental hygiene knowledge.
- Apply principles of experimental design to research questions.
- Identify major funding sources which are likely to support dental hygiene research.
- Be aware of factors which are involved in grant review procedures.

- Review research findings of peers.
- Synthesize dental hygiene knowledge.
- Progress in one's research efforts.
- Establish collaborative research efforts.

A poster presentation will be held on Thursday, July 16.

For further information please contact:

A.D.H.A.
444 North Michigan Ave.
Suite 3400
Chicago, IL 60611

Conference Agenda

Theories: Why do we need them and where do they come from?

■

Dental hygiene knowledge: Do we have it?

■

Research: How do we do it?

■

Research: How do we fund it?

■

Research: We did it, let's share it!

Editors Note

The above is the second U.S. National Dental Hygiene Research Conference, - the first was held in Denver in 1984. The original Conference on Dental Hygiene Research was held in Winnipeg in 1982 under the auspices of the Working Group on Dental Hygiene in collaboration with the University of Manitoba. A follow-up on research activities conducted by the participants will be printed in the Summer Issue of the Journal.

ORDER FORM

ITEM	QUANTITY x	PER UNIT COST	TOTAL
1987 DENTAL HEALTH MONTH MATERIALS			
1987 PLANNING KIT SUPPLEMENT			
English		Free	
French		Free	
PLANNING KITS			
English (Replacement copies)		\$10.00 each	
French (Replacement copies)		\$10.00 each	
POSTERS			
English		\$0.80 each	
French		\$0.80 each	
BUTTONS (available in lots of 20)			
English		\$5.00 / 20	
French		\$5.00 / 20	
RADIO MESSAGE (available in English only)			
		\$5.50 each	
MOTIVATION STICKER (available in lots of 100)			
English		\$11.00 / 100	
French		\$11.00 / 100	

GOOD FOR LIFE INFORMATION RESOURCES

1st NATIONAL DENTAL HEALTH CHECKUP (1985)
(available in English only)
(will be shipped C.O.D.)

English	Shipping costs only
---------	---------------------

2nd NATIONAL DENTAL HEALTH CHECKUP (1986)
(will be shipped C.O.D.)

English	Shipping costs only
French	Shipping costs only

FACT SHEET PADS
(will be shipped C.O.D.)
(Circle topics required. For list, see back cover)

Topics: a b c d e f g h i j

English members price	\$5.00 / pad
English non-members price	\$6.25 / pad
French members price	\$5.00 / pad
French non-members price	\$6.25 / pad

WHAT EVERY ADULT SHOULD KNOW ABOUT DENTAL HEALTH

(price includes delivery costs)

English members price	\$10.00 / 100
English non-members price	\$11.50 / 100
French members price	\$10.00 / 100
French non-members price	\$11.50 / 100

SHIP TO:

Name

Address

Postal Code

Telephone

Please make cheques payable to the Canadian Dental Association.
Return your completed form to:

Canadian Dental Association
Order Section
1815 Alta Vista Drive
Ottawa, Ontario
K1G 3Y6

DENTAL HEALTH

LET'S KEEP IT

Good For Life

Dental Health Month 1987: The Good for Life Pledge

"To change people's dental health, you have to change their dental habits. And what better way to begin than to urge people everywhere to sign a pledge - to make a serious, personal commitment to keeping their dental health Good for Life? For Dental Health Month 1987, we have a special goal: to get 1,000,000 Canadians to *Make the Good for Life Pledge.*"
Dr. John Robertson,
President, Canadian Dental Association

This year, there's a new theme for Dental Health Month. It's *The Good for Life Pledge.* Instead of a New Year's resolution, it's a Dental Health Month resolution: a deliberate decision to do what it takes to keep your teeth and gums healthy, comfortable, and working well for the rest of your life. Community activities and in-office promotion this year both focus on getting individuals to sign the Pledge.

To succeed, *The Good for Life Pledge* needs support and involvement from everyone - organized dentistry and dental hygiene at all levels, public health units, and individual professionals - contributing their enthusiasm, experience and perspective. In the end, *The Good for Life Pledge* depends on you. So please: hang a poster, wear a button, let people know. And order your resources now while supplies last!

Legislative Review in Ontario

Over the past number of years the Ontario Dental Hygienists' Association (ODHA) has been increasingly involved in the process of legislative review. This began in 1982 when the Ministry of Health established an independent team of lawyers and health policy specialists – the Health Professions Legislation Review (HPLR) – to carry out an extensive review of Ontario's health professions legislation. Regulatory reform of the health care professions has been considered long overdue since the existing system has 19 health professions regulated under 7 different pieces of legislation. Some of these groups are governed by a statute that is more than 60 years old while others are regulated under the more recent Health Disciplines Act proclaimed in 1974. The Review's task is to develop a new regulatory system which will include all health professions under one piece of legislation and will have flexibility for change as the health care system and its professions evolve.

The first phase of the Review was to identify those health disciplines that required regulation. A set of criteria for regulation were established and addressed by the ODHA. On April 3, 1986 the Minister of Health, the Honourable Murray Elston, announced that dental hygiene was one of the 25 health professions that would be regulated. This was not unexpected as dental

hygienists have been a regulated profession since 1951. The primary issue has become whether dental hygienists should continue to be regulated under the authority of the Royal College of Dental Surgeons of Ontario (RCDS), or whether they should function as an independent group of dental health professionals with full responsibility for their own regulation.

Historically, the RCDS has had the power to define, regulate and control the practice of dental hygiene. Decisions regarding dental hygiene are made by a Council consisting of 9 dentists elected from geographically defined districts across the province, 2 dentists appointed from the dental faculties and 5 appointed lay representatives. For a period of over 30 years, dental hygiene was regulated without representation on the governing body. In 1980, 2 dental hygienists were elected as "official observers" to the RCDS. They attend and participate in RCDS Committee meetings but have no voting privileges on the Council.

Over the years, this lack of representation has resulted in arbitrary changes to dental hygiene's scope of practice and a total inability to come to grips with the supervision issue – two major concerns of the dental hygiene profession. The present regulatory system continues to deny peer review for dental hygienists involved in complaints or disciplinary procedures. Our concern is that there is an inherent conflict of interest in that dentists, who constitute the governing body,

are also the employers of dental hygienists. It is clearly in the economic self-interest of the employer-dentist to define, regulate and control the practice of dental hygiene. Consequently, the ODHA contends that the regulation of the dental hygiene profession by dental hygienists would best serve the dental needs of the public of Ontario while ensuring equitable treatment of the profession.

With the decision to seek self-government, the ODHA has invested a significant amount of time, energy and expense in presenting its position to the Review. Activities to date include numerous submissions to the Review and intensive discussion with both the Review and other health professional groups. ODHA's activities and progress to date have been possible through the efforts of many. A relatively small group of individuals have contributed an incredibly large amount of time in developing ODHA's submissions to the Review. An excellent legal counsel has assisted our efforts. Others in the ODHA have contributed time towards fundraising activities which have collected over \$25,000.00. Dental hygienists in Ontario and across the country have offered both moral and financial support to ODHA. This support is most appreciated and as the Review continues and our activities within it escalate and intensify, it is important that this support continue.

A considerable amount of emphasis has been placed on keeping the dental hygienists

in Ontario informed and updated on our progress. In an effort to heighten awareness of ODHA's legislative activities, a public relations campaign was mounted and an information manual was developed addressing the issue of self-regulation. This was distributed to *all* dental hygienists in Ontario. In addition, members of the ODHA Executive are visiting various dental hygiene component societies across the province discussing these and other issues.

The ODHA feels its request for self-government is fully justified and an appropriate progression for a mature, responsible profession. Dental hygienists are requesting nothing more than most other health professions in Ontario already have – the responsibility of regulating itself. Such professions include Nurses, Physiotherapists, Chiropractors, and Denture Therapists, to name a few.

Since the goal of self-regulation has been established, it has become apparent that a significant misunderstanding exists regarding the meaning of self-regulation. Many of these concerns are voiced by the dental profession who feel self-regulation and independent practice are synonymous terms. The ODHA has worked hard to dispell this myth. Quite simply, self-regulation does *not* mean independent practice! Self regulation means the ability of a profession to regulate and control itself and matters related to its profession. Clarification of this point has seen some very

positive results as dentists and dental hygienists come to support ODHA in its pursuit of self-regulation.

We anticipate that the Minister of Health will make an announcement in the near future regarding the granting of self-regulatory status for the health professions in Ontario. The ODHA is confident that dental hygiene will be among those professions granted self-regulation.

Proceeding concurrently with the regulation issue is the second phase of the Review. This is to define each profession's scope of practice and the specific powers each regulatory body will require. This phase will also develop legal and procedural reforms for the operation of the governing body. To date, discussions with the Review team have taken place and briefs have been submitted addressing these issues.

All indications are that the Health Professions Legislation Review will continue for an extended period of time. The progress of the Review to date has been prolonged due to a change from Conservative to Liberal government, to a succession of five different Ministers of Health since 1982 and to numerous other circumstances. However, the work of the HPLR is only a small part of a larger process. The Review, having completed its task, will make recommendations to the Minister of Health who will make a final decision on the proposed legislation. This decision will then be presented to the Ontario

Legislature who will debate the issues through three readings. Careful scrutiny of the legislation will be done by both the Legislature and by groups participating in the Review process. It is not unreasonable to expect an additional 3-5 years to elapse before the new health profession legislation is finalized. During this time ODHA will continue to participate in the Review. The planning and allotment of time, money and manpower to continue our commitment will receive important consideration by our association.

The Health Professions Legislation Review is quite likely the largest undertaking by any government, provincial or federal, to develop statutory legislation and the ODHA considers it a privilege and a challenge to participate in this process. The growth and maturity of our profession during this time is evident and we feel the end result will see very positive changes for the future of the dental hygiene profession. ■

Laura Dempster
President
Ontario Dental
Hygienists' Association.

ALTERNATIVE PRACTICE

Hospital Dentistry

Ann H. Hasselquist

R.D.H., B.Sc.

As a new graduate of dental hygiene I entered the dental world as something of an idealist. A perfectionist to the core, I had visions of evangelizing my patients, converting them to "proper dental hygiene" and all the benefits it would provide. They would brush properly three times a day, floss daily and avoid sweets and I would scale, root plane, polish their teeth and apply fluoride at their regularly scheduled recall visits. Eight years later I know better. Not all patients have sat quietly in the chair as they did in school. I have been the recipient of bites, vomit and wet sneezes. I have had to chase patients down the hall, catch them and then scale them on the floor rather than in a dental chair. But my most memorable experience was being absolutely terrorized by a juvenile delinquent from the mental health ward. They sure never mentioned experiences like these in hygiene school.

Five years ago, after two and a half years in private practice I decided I wanted an "adventure". Seeing an ad for community health hygienists in Calgary, Alberta sparked my interest and I moved from Minneapolis, Minnesota to Calgary and began working for a health unit. During this time I



also found part-time employment at an institution for the severely mentally and physically handicapped. Every Saturday morning I arrived at the institution for three hours of hard, hard work. This was invaluable training far removed from the controlled and sterile environment of the University. In training, of course, we were taught to remove all traces of microbial plaque and calculus and there was a sense of accomplishment when we did so. This standard needed to be adjusted when working with the handicapped for unless they were heavily sedated, I had to be satisfied with doing the best job I could under the circumstances. Initially, this was extremely frustrating but gradually I began to derive satisfaction from being able to help them at all.

My institutional experiences, as well as my work in private practice and public health have provided a solid background for my job as dental hygienist in the Department of Oral Medicine and Surgery at the

Alberta Children's Hospital.

The Department of Oral Medicine and Surgery is an exciting, new pilot project in operation at the Alberta Children's Hospital Child Health Centre in Calgary, Alberta. Our mission is to develop, promote and provide quality patient care at the interface of medicine and dentistry involving principally those patients who for reasons of medical diagnosis, handicap or age require special care or special settings.

The Department officially opened in November 1985. When construction for additional hospital facilities was initiated in the late 1970's, plans for a dental suite were included. By the early 1980's the dental clinic was completed and consisted of two complete operatories, one complete dental hygiene suite and a dental operating theatre. Radiographic facilities were included in all areas. While the operating theatre was utilized by community pediatric dentists, the rest of the equipment sat unused for four years. A dental hygienist was employed by the hospital, but her job was limited to visual inspections and dental health education. No clinical dental services were provided by the hospital because there was no one to staff the clinic.

Determined to see this beautiful, new facility utilized, a group of dedicated Calgary pediatric dentists began a search for private funding. This was accomplished and a pilot project was initiated in the form of a Department of Oral Medicine and Surgery headed by Dr. Richard Abrams as Clinical Director. As a pediatric specialist, his extensive background in oral medicine, dentistry for the handicapped, hospital dentistry and oncology made him the perfect choice to develop the program.

With the hiring of a full-time dentist the job of dental hygienist expanded greatly. Clinical procedures now became a priority. But our first undertaking was an internal public relations campaign to let the hospital know who and where we were and what we had to offer.

In the beginning, patients were not exactly knocking down our doors or clamoring for dental attention. I spent the first few months going through files, getting to know the hospital and the staff. A few more patients trickled in each day. As the weeks went by, the hospital began to realize what our department had to offer and how diverse those services could be. They saw, for example, Dr. Abrams construct a mouthstick for a high-level quadriplegic, and also design a neo-natal orthopedic and feeding appliance for a baby born with severe bilateral cleft palate. At another time he was called in for consultation regarding a toddler who had suffered extensive facial burns and had to wear a tight-fitting

jobst mask. In another instance he became a key person in treating a teenager who had advanced rheumatoid arthritis with temporo mandibular joint involvement.

As department hygienist I am responsible for all of the handicapped as well as the other "special needs" children including children with Hemophilia, children with infectious diseases (Aids, Hepatitis B), emotionally disturbed children, children with renal transplants and children with bone marrow transplants.

As well as being a clinician my role also entails being a dental health educator and public relations officer. I am available to do dental inservices with the hospital staff, providing them with information on dental care, focusing on the integral part oral health plays in total health and well being. I also emphasize the services our department can provide. Until very recently, we were the last people the medical staff called when a child was hospitalized with facial cellulitis. Now we are among the first to be called in for consultation. We have also heightened the medical staff's awareness of the systemic impact of oral disease and the oral complications of some systemic diseases.

I also visit the school attached to the hospital, the Gordon Townsend School, whose purpose is "to provide education and treatment to children who for reasons of physical, emotional, or developmental disability require a specialized, safe, therapeutic environment." My involvement in the school

includes doing visual dental inspections, providing dental health education and being a resource for parents and teachers.

Because we are the only hospital oral medicine service in southern Alberta, our services have expanded to include limited treatment of medically compromised adults. Since we are soon to become the nucleus for the birth of the Division of Oral Oncology at the Tom Baker Cancer Centre, a mouthcare protocol has been established for individuals undergoing cancer therapy, principally involving tumors of the head and neck. Each individual is seen by our department before starting chemo or radiation therapy as such therapy often results in acute oral mucosal reaction (mucositis), loss of taste sensation, salivary dysfunction, radiation caries, osteoradionecrosis and microbial infections. The patient is assessed and potential problems (abscessed teeth, severely periodontally involved teeth, impacted third molars, etc.) are treated, either by our department, their family dentist or other specialists in the community. The protocol also includes a thorough prophylaxis, perio therapy and oral hygiene instruction as well as instructions on how to keep oral complications to a minimum.

As we move into our second year the department is thriving and ever evolving. One new program that is being initiated in early 1987 is an Infant Oral Health Clinic. This program promises to help parents design and implement a

customized preventive regimen for their infants and family. Each child will also receive a clinical evaluation at the time.

One program that is in the planning stages is the development of a hospital rotation program for the University of Alberta dental students. Our department also has hopes for a similar program for dental hygiene students to prepare them for hospital careers.

In addition, the department is pursuing the development of a facility to provide oral medicine services to medically compromised adults.

Research projects include a genetic study of handicapping

syndromes with oral-facial involvement, a study on salivary dysfunction and a study on oral orthosis construction for quadraplegics.

I find my work interesting, challenging, and stimulating. I have opportunities to see things that previously I had only read about in textbooks, i.e. Ectodermal Dysplasia, Reiger Syndrome and Chronic Graft VS Host Disease. While there are moments that are emotionally difficult, such as seeing a parent with a child who is terminally ill, it is rewarding to know that I am taking care of people who really need my help. ■

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Dates to Remember 1987

- May 9 - 12 ■ O.D.H.A. Convention
Toronto, Ontario
- May 25 - 28 ■ L'Journées Dentaires/CDA Convention
Montreal, Quebec
- June 5 - 7 ■ C.D.H.A. Annual Board of Directors Meeting
Ottawa, Ontario
- June 11 - 13 ■ S.D.H.A. Convention
North Battleford, Saskatchewan
- June 17 - 24 ■ American D.H.A. Annual Session
St. Louis, Missouri
- June 18 - 21 ■ B.C.D.H.A. Convention
Vancouver, B.C.
- June 28 - July 1 ■ Pacific Rim Conference
Banff, Alberta

1988

- August 21 - 24 ■ C.D.H.A. Convention
Edmonton, Alberta

1989

- June - July ■ International Symposium on Dental Hygiene
Ottawa, Ontario

A NATIONAL SURVEY

A national survey is being undertaken jointly by Pat Johnson, Ph.D. candidate, University of Toronto and the C.D.H.A.

Who?

All dental hygienists in Canada will be surveyed by mail. Most dental hygienists will receive a fairly brief questionnaire to complete. A random sample will receive a more comprehensive and lengthier form.

Since this form is so comprehensive, it may be longer than other questionnaires you may have filled out. Please do not be daunted by the length. Your input on each of the issues addressed is vital.

When?

The survey commences May 1, 1987.

Why?

The dental hygienist is a primary provider of dental health promotion and education. Given changing patterns and trends in population characteristics and in the incidence and prevalence of dental diseases, the role of the dental hygienist is of significance in planning for improved accessibility and cost-effectiveness in

CURRENT
PROFILE
&
FUTURE
DIRECTIONS

DENTAL
HYGIENE
IN CANADA

the provision of dental health services. Lack of current information on dental hygienists limits planning for improved service delivery, in particular to presently underserved groups like the elderly and the institutionalized. This study will provide the first in-depth analysis of information on dental hygienists in Canada.

Current discussions concerning the numbers and mix of dentists and dental hygienists required for the future are under way. There is a need for better information about dental hygienists. Briefs to present the dental hygiene perspective require documentation about the characteristics, work habits, and preferences of dental hygienists.

The Canadian Dental Hygienist Study will investigate other factors that may influence the rate of workforce participation (for example, gender, age and number of dependents, work and workplace characteristics, and career and job satisfaction). It will provide information needed to represent dental hygienists' professional interests.

The Purpose of the Study is to:

Develop a profile of dental hygienists in Canada, including their supply and distribution, career and work patterns and preferences, and characteristics of their employment situations. Factors related to their level of

workforce participation, choice of practice setting, and pattern of clinical practice will be identified.

The total census is to identify the current supply and distribution of dental hygienists in Canada (i.e., numbers and amount of time worked at dental hygiene), to determine trends over time using previous enumerative survey information from Statistics Canada, and to prepare supply projections for the future, comparing these projections to those of other existing studies.

The purpose of the smaller, more comprehensive survey is to identify characteristics and factors concerning dental hygienists, their practices, their work settings and their employment situations that may influence future supply. Current

assumptions about why dental hygienists work full time, part time or not at all will be examined. Results will be useful for issues related to the education, regulation and practice of dental hygienists – at the level of both the individual and the entire profession.

Don't miss this opportunity to be counted. When your survey arrives, respond immediately and help shape the future of the dental hygiene profession.

Responses from atypical dental hygienists are very important – those who are not working, not working at dental hygiene, or who feel they are in some way not “average”. They provide information for comparison purposes. Reasons for certain working patterns can be identified. Practice preferences and future alternatives can be identified, together with dental hygienist attributes associated with these preferences and opportunities.

Respond. Make an Impact on the Future.

Participation of dental hygienists in Canada in responding to the survey is essential. A high response rate will help to ensure scientific reliability of the information and to provide irrefutable evidence to support the position of dental hygienists on important issues.

When you receive your survey in the mail, please answer each question as completely and as candidly as you can. Your responses will not only be completely confidential, but will also be **TOTALLY ANONYMOUS**. No one will be able to trace your answers back to you. Your prompt and candid response will provide CDHA with the valuable information they need to better represent you when issues critical to the dental hygiene profession are being considered. ■

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QUALITY AND COMPETENCE ASSURANCE

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Editors Note

The following article is an edited and updated version of Ellen Brownstone's verbal presentation to the C.D.H.A. Board in 1984. The content is timely since Marnie Forgay was appointed Chairman of the Task Force on Quality and Competence Assurance in September 1986. Her committee will present their proposed strategy to the Board of Directors at the 1987 Board Meeting.

Introduction

This paper includes relevant information on competence and quality assurance programs related to the current use of terminology in this area, and to the mechanisms for developing such programs. Information is provided concerning the theoretical and practical application efforts of several other professional health care organizations to establish competence and/or quality assurance programs. The project of the Federal Government Working Group on the Practice of Dental Hygiene to establish standards for Canadian dental hygiene practice is outlined.

Also investigated is the rationale of dental hygiene's potential involvement in establishing competence and/or quality assurance program(s). In a concluding section of this paper an attempt is made to provide the Canadian Dental Hygienists' Association (C.D.H.A.) with recommendations concerning their future role in establishing some form

of competence and/or quality assurance for dental hygiene in Canada.

Quality and Competence Assurance Programs in the Health Care Professions

A review of the literature related to the concepts/terms of competence and quality assurance indicated that there are no universally accepted definitions of terms, however, the concepts of competence and quality assurance and standards for practice are closely interrelated in terms of "quality care". These concepts have been adopted and utilized in similar ways by several health care organizations but the use of the definition of such terms vary greatly between these organizations.

Background

A. AMERICAN DENTAL HYGIENISTS' ASSOCIATION

In 1979 the American Dental Hygienists' Association (A.D.H.A.) established the "Commission for the

Assurance of Competence of Dental Hygienists". This Commission was established in response to the desire of the Dental Hygiene profession to assume responsibility for the quality of care it provides. In 1980 the "Task Force on Standards of Practice" was created by the A.D.H.A. House of Delegates. This Task Force identified working definitions for the terms "dental hygiene practice" and "standard". Dental hygiene practice "consists of those preventive, educational and therapeutic services provided by the oral health profession known as the dental hygienist in order to provide health care to the public".¹ The following definition of standard was adopted:

A standard serves as a basis of comparison and identifies the range of acceptable variation. It is recognized by common consent and is established by the profession.²

The purpose of establishing standards for practice was to describe acceptable clinical dental hygiene practice. A standard must exist for any patient care service which dental hygienists provide.

In 1982 a draft of twelve standards of practice were presented to the A.D.H.A. House of Delegates. Five factors were believed to be necessary for acceptable dental hygiene practice: skill, knowledge, judgement, ethics and communication. These factors were considered in developing standards.

The development of a standard had three components:

1. a statement describing an outcome of performance
2. a rationale or justification for the standard
3. a series of integral components that provide the basis for evaluation for the standard.

The development of standards of practice was one aspect of the Competence Assurance Program planned by the A.D.H.A. They have defined competence assurance as "the certainty with which practitioners can identify throughout their careers their ability to carry out the responsibilities of their position."³

In addition to having established standards of practice, the Competence Assurance Program was designed to:

1. develop a self-assessment instrument for practitioners to use in establishing their clinical competence.
2. develop suggestions for an action plan of self-directed learning in those areas of identified weakness.

Competence assurance is considered to be a major component of quality assurance. The A.D.H.A. Commission on Competence Assurance has recently disbanded, and the development of competence assurance programs are being pursued at regional levels.

B. American Dental Association

The American Dental Association (A.D.A.) defines quality assurance as, "the assessment, or measurement of, or judgement about, the quality of care *and* the implementation of any necessary changes to either maintain or improve the quality of care rendered."⁴

In 1976 the A.D.A. sponsored by the American Fund for Dental Health and supported by a grant from the W.K. Kellogg Foundation, began an eighteen month research program to investigate quality assurance activities in dentistry. Forty-eight quality assurance systems in the United States were identified and eleven of these systems were reviewed. The review included investigation of hospital review systems, ambulatory review systems and third party carrier review systems. Based on the results of this extensive study, the A.D.A. developed a quality assurance model for dentistry, known as the Dental Care Evaluation Program. (Figure 1)

Essential to the planning, implementation and evaluation of the Dental Care Evaluation Program were:⁶

1. practitioner input and consulting expertise when appropriate.
2. documentation of procedures and pilot testing of the system.
3. incentives to encourage dentist participation.

4. formal training for individuals involved in implementation of the system.
5. selection of cases which represent current practice.
6. criteria which were explicit, measurable and valid.
7. development of criteria by individuals who were representative of the providers being reviewed.
8. positive and negative feedback which was timely.
9. recommendations for action which were appropriate, documented, implemented and followed up.
10. on-going evaluation of the review system.

Fig. 1

Quality Assurance Model⁵

- I Planning
- II Administration
- II Topic and Provider
- IV Case Selection
- V Criteria and Standards Development
- VI Data Sources
- VII Data Collection
- VIII Analysis and Peer Review
- IX Feedback
- X Follow-up
- XI Impact: Improved Quality of Care Provided and Improved Health Status
- XII Evaluation of the Dental Care Evaluation Program

The American Dental Association distinguishes between the terms "quality assessment" and "quality assurance".

QUALITY ASSESSMENT is the measurement phase of quality assurance and includes major elements I - VIII (inclusive) (Figure 1) as described by the Dental Care Evaluation Program. QUALITY ASSUR-

ANCE extends beyond measurement to include the carrying out of actions which will maintain or improve the quality of care being delivered by providers of dental care (elements IX - XII inclusive). (Figure 1)

The concept of evaluating the quality of dental care provided by dental health professionals has been investigated over the past three decades. Schoenfeld identified four levels of dental care: individual service, the oral cavity, the person and the community,⁷ and four dimensions of resources. (Figure 2) Donabedian described how he assessed quality within three categories: structure, process and outcome. (Figure 3)

Fig. 2

Dimensions of Resources⁷

1. TECHNICAL - types of instruments and materials used to provide services, and the way they are used.
2. PROFESSIONAL - LOGISTIC - kinds of services provided - for whom, by whom, the number of appointments required, the length of time of appointments, location of service being provided and factors that may interfere with service delivery.
3. ORGANIZATIONAL - includes personnel, facilities, programs and their inter-relationships.
4. FINANCIAL - methods by which services are financed.

Fig. 3

Quality may be assessed within three categories:⁸

STRUCTURE: descriptive, innate characteristics of facilities or providers (eg. records, equipment, policies, etc.).

PROCESS: The provider's actions for a patient and the movement of a patient through the health care system (eg. choice of instruments, patient management skills, etc.).

OUTCOME: results in the patient in terms of palliation, cure, treatment or rehabilitation.

The patient care process is multifaceted with many dimensions of quality. There does not appear to be one simple description for quality of dental care or one mechanism to assess it.

C. Canadian Association of Occupational Therapy and Canadian Association of Physical Therapy

In the 1970's it was mandatory for physiotherapists to conduct "patient care appraisals" as a method of reviewing the care being provided. In the late 1970's the concept of "quality assessment" (measurement of the quality of patient care being provided) became popular.

Programs of occupational and physical therapy within hospital and institutional settings are subject to the accreditation process administered by the Canadian Council of Hospital Accreditation (C.C.H.A.). In 1982-83 the C.C.H.A. developed the concept of "quality

assurance": measurement of the quality of care being provided *plus* taking actions to alleviate and improve upon deficiencies in the care being provided.

The C.C.H.A. identified the components of a Quality Assurance Program to be:

1. Surveillance of the quality of care being provided.
2. Correction of deficiencies.

A quality assurance program gives consideration to the structure, process, and outcomes of the care being provided. Structure refers to the characteristics of both the physical and human resources. Process includes the interactions between the patient/client and the providers of care from the time the patient enters into the care system until they leave the system. Outcome refers to the end result of care including the health status of the client and his/her level of satisfaction with the interactions that have occurred with the health care facility.⁹ The ideal quality assurance program includes surveillance of the structure, process and outcome of care, and has mechanisms for taking corrective action in each of these three areas.

The Canadian Council on Hospital Accreditation provides "standards for practice" to every department of every facility it surveys. Accreditation standards in simplistic terms address the what, how, who, where and when of patient care and/or service delivery. These standards were revised in 1983 with a

separate section devoted to quality assurance programs. Such quality assurance programs are expected to include:

1. hospital - wide goals
2. procedures to measure attainment of goals
3. solutions for goals not achieved
4. on-going mechanisms of quality assurance
5. a program specific to the facility
6. structure and coordination throughout a facility

Physiotherapists have developed a "functional assessment form" that can be quantified. The purpose of this form is to collect data on the provision of care to patients/clients and then measure practised behaviors against standards of practice. Problems can be identified and then steps taken to overcome any problems of practice.

In 1982 the Canadian Association of Occupational Therapists (C.A.O.T.) developed a document of Standards for Occupational Therapy Services. In 1983, the C.A.O.T., supported by a grant from the Department of National Health and Welfare, established 'Guidelines for Client-Centered Practice'. A portion of this grant is presently being utilized to develop a document on 'Standards of Treatment'.

The professions of Occupational Therapy and Physical Therapy are cognizant of the need for developing quality assurance programs and both of these health care groups are currently taking steps

toward the attainment of this goal.

D. Professional Associations of Nursing

Several nursing organizations in Canada have developed standards of nursing care; for example, the Canadian Nurses Association (C.N.A.), Ontario Association of Registered Nurses Operating Room Nurses, and the Manitoba Association of Registered Nurses (M.A.R.N.).

In Manitoba the nursing profession has been involved in the development of standards since 1976. Members of the nursing profession are accountable to consumers, employers, colleagues and to themselves for the care which they provide.¹⁰ Accountability can be achieved through the development of standards. Standards reflect the requirements for quality nursing care.

In 1977 the M.A.R.N. developed a document on "Standards of Nursing Practice" applicable to all areas of nursing (direct care, education, administration and research). From 1979-81, M.A.R.N. conducted a research study to measure the quality of nursing practice in Manitoba with the intention of refining the Standards established in 1977. During this period of time, standards workshops were held throughout the province. In June of 1981 M.A.R.N. published a document entitled "Standards of Nursing Care".¹¹ At present, the Manitoba Association of

Registered Nurses, through a federally funded research grant, are developing and testing instruments to measure the Standards of Nursing Care.

The nursing profession has been actively involved in some form of quality assurance for more than the past decade.

E. Federal Government Project on the Development of Clinical Practice Standards for Dental Hygienists

On August 31, 1984 the federal department of Supply and Services approved a contract between the Health Services Directorate of the Department of National Health and Welfare and SJB Management Consultants (Manitoba) for the development of clinical practice standards for dental hygienists. The project was to extend over three years and utilize the following methodology:

1. a review of the literature to delineate clinical dental hygiene practice.
2. development of a framework for dental hygiene practice. The criteria (variables believed to be indicators of the quality of dental hygiene care) were specified within this framework.
3. consultation with experts in clinical dental hygiene to establish the content validity of the criteria at a workshop held in Winnipeg in July, 1985.

4. development of standards for the validated criteria.
5. survey of Canadian dental hygienists to establish the content validity of the standards. (Spring 1986)
6. preparation of a final report including a statement of the practice criteria and standards.

The survey of Canadian dental hygienists was to be analyzed and a statement of practice criteria and standards presented in 1987. The methodology was modeled after that used by the Manitoba Association of Registered Nurses in the development of their standards. The project was monitored by a National Advisory Committee. (Figure 4)

After the standards have been published, C.D.H.A. will investigate how they can be utilized. The standards can be used to assist C.D.H.A. in promoting the contributions and roles of dental hygienists in the Canadian dental care

delivery system as well as in quality assurance efforts.

Competence/Quality Assurance for the Profession of Dental Hygiene in Canada

The following are a number of valid reasons for dental hygiene's involvement in competence/quality assurance:

- commitment to the provision of quality care
- acceptance of dental hygiene's accountability for the services we provide
- sensitivity to the consumers' concerns and needs
- professional growth and maturity - dental hygiene becoming a "true" profession
- potential for the profession of dental hygiene itself to develop a peer review system for clinical quality assurance and to have the authority to undertake regulatory action for individuals whose performance is not meeting the standards

Fig. 4

Advisory Committee Members

Prof. Diane Lachapelle -
Harvey (Chair) -
Université Laval
Prof. Marnie Forgay -
Dalhousie University
Dr. Larry Chambers -
McMaster University
Ms. Kathleen Scherer -
Research and Planning
Directorate, Manitoba Department of Health (formerly
M.A.R.N. Standards
Consultant)

Dr. Arthur Schwartz -
University of Manitoba
Dr. Doug Yeo - University of
British Columbia
Ms. Diane Girardin -
Private practice
Dr. Bill Bedford -
Health and Welfare Canada
Ms. Sharon Amer -
Health and Welfare Canada
Sheryl Feller of SJB Management Consultants - project
researcher.

- demonstration to the public that we are accountable for our services by employing quality assurance mechanisms (should supervisory restrictions alter in the future)
- provision of a means to assess the quality of services provided by dental hygienists and means to improve them, if necessary
- demonstration to dental and other professional health care groups that continuous systems of quality assurance can be designed, implemented and evaluated *by* dental hygiene *for* dental hygiene.
- development of new areas of research in dental hygiene
- maintenance of continuity between the ideals presented during formal training for dental hygienists and what is actually practised in terms of delivering care to the public.

The available literature on quality assurance strongly encourages use by health professional groups but also identifies potential and existing negative factors related to its implementation. For example, the establishment of a quality assurance program requires a strong commitment and time investment from its developers, administrators and participants. Secondly, the development, implementation and maintenance of quality/competence assurance mechanisms are costly. Thirdly, it may be a difficult task to make quality/competence assurance appear positive and

attractive to the dental hygiene practitioner. Another factor to consider may be the legal implications of establishing standards of dental hygiene practice. Standards might be legally used against dental hygienists in terms of the moral, ethical and professional care they provide to patients. The American Dental Hygienists' Association states that, "standards of dental hygiene practice do not represent a legal standard of care for dental hygiene and should not be regarded as a legal basis for practice. They are not intended to modify or alter existing laws in regard to malpractice or negligence."¹²

Conclusion: Recommendations for C.D.H.A. Re: Competence and Quality Assurance

A number of health care professions are presently engaged in competence/quality assurance activities. The basis of any competence or quality assurance program is the development of standards. Standards for clinical dental hygiene practice in Canada are currently being established. Based on the literature review outlined in this paper and discussions held with individuals involved in quality assurance activities, the authors made the following recommendations to the C.D.H.A.:

1. Investigate the use of the standards established through a project of the federal government, Work-

ing Group on the Practice of Dental Hygiene, to promote the roles and contributions of dental hygienists in the Canadian dental care delivery system as well as in competence/quality assurance efforts.

Examples to include: peer review, professional self-assessment, identification of personal continuing education needs, and the use of individual hygienists for use as a baseline for providing quality dental hygiene services.

2. Following the development of Standards of dental hygiene practice, it was recommended that the C.D.H.A. establish a task force whose primary goals would be:
 - a) an in-depth investigation of the theories/methods of assuring dental hygiene competence.
 - b) the development of a national model of competence assurance, for clinical dental hygiene practice.
 - c) an investigation of the resource implications of a competence assurance program (financial costs, personnel, etc.).
 - d) determination of who would be responsible for the implementation and maintenance of a competence assurance program - C.D.H.A. or provincial dental hygiene organizations?

- e) an investigation of standards and competence/quality assurance in other dental hygiene settings (public health institutions, etc.).
 - f) to correspond with those dental hygiene associations who have developed competence assurance programs to learn of their successes/failures in implementing competence assurance programs.
 - g) development of a long range plan for a quality assurance system for dental hygiene in Canada.
3. That C.D.H.A. attempt to obtain external funding to establish a task force that would serve to investigate competence/quality assurance for dental hygiene in Canada. ■

**The authors would like to acknowledge the assistance and information provided to them by Mrs. Sheryl Feller, SJB Management Consultants, for sections of this paper.*

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ROOT SURFACE CARIES: IMPLICATIONS FOR DENTAL HYGIENISTS

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Introduction

Two recent trends of significance to dental hygienists have been pointed out by numerous authors:

1. There is a marked demographic shift toward a higher percentage of older adults in the population.
2. More of the population is remaining dentate. Water fluoridation, improved preventive techniques, and other unidentified factors have resulted in the retention of a high proportion of teeth which previously would have been lost. (1-6)

The impact on the dental community of these developments is only beginning to be realized. The demand from older adults for dental services is expected to increase. Accordingly, emphasis must

be placed on the diagnosis, treatment, and prevention of oral diseases prevalent in this age group, including root caries. (6,7)

Root caries is emerging as a major dental health problem and is one of the few oral diseases exclusive to adult populations. (8, 9) It does not confine itself to older adults. Changes in susceptibility to root caries may be found in the 20-40 year old group. Nonetheless, the greatest increase in root caries seems to occur in the 30-60 year old age group. (1, 6, 10, 11)

Root caries can occur only on root surfaces exposed to the oral environment. This exposure may be the result of recession caused by disease, trauma, or periodontal therapy. (1, 6, 8, 12) These conditions generally tend to occur during the middle and

late years of life, however, it should be remembered that root caries is more directly correlated with the number of exposed root surfaces rather than with age alone. (1, 5)

Prevalence and Incidence

The prevalence of root caries (i.e. the amount of root caries present in the population) is difficult to ascertain. Although several studies have been done recently, the diversity in sample populations makes the data difficult to compare. (3, 4) Representative populations of adults are more difficult to obtain than those of school children since adults do not conveniently collect in any place as do children. (4, 8) Most of our present knowledge of root caries has been accumulated through a series of studies of convenience populations. (10) These studies have drawn samples from such locations as a mental hospital, an insurance company, military personnel,

institutionalized older adults, patients suffering from advanced periodontal disease, and well-elderly in seniors' activity centres. (4, 5, 7, 10, 11, 13, 14) Studies done in Iowa and Finland included representative samples of the non-institutionalized older adult population. (13, 15) Although such diverse data are difficult to compare rigorously, some observable patterns are emerging. (3, 6). One such pattern is the apparent doubling of the prevalence of root caries between the ages of 30 and 60. (6)

A study by Stamm and Banting (1980) compared the prevalence of root caries between lifelong residents of fluoridated and non-fluoridated communities. The data show that a lifelong consumption of fluoridated water is associated with a highly significant reduction in the presence of root caries and/or fillings at all ages. (1)

Studies of the incidence of root surface caries (i.e. the number of new lesions occurring over a given period of time) are even more difficult to conduct. Hand and Hunt (1986) found that in 41.4% of non-institutionalized older adults in Iowa during an 18 month period, new root surface caries developed, with an average increment of 0.7 surfaces per person. The attack rate for maxillary teeth was found to be twice as high as the rate for mandibular teeth. (15)

Etiology

Microflora responsible for root surface lesions are probably the same as those responsible for coronal caries. (16) Early

studies implicated *Actinomyces viscosus* as a predictor for root caries. However, *A. viscosus* has been shown to adhere to both diseased and healthy root surfaces. More recent studies show *Streptococcus mutans* and lactobacilli to be associated with root caries. (16) Sucrose enhances the ability of *S. mutans* to adhere to the exposed root surfaces. An increase in dietary sucrose correlates with an increase in root caries. (14, 17)

Predisposing Factors

Patients with a history of root caries are at greater risk of developing new lesions than those without such previous experience. (3, 14) Another predisposing factor for root surface caries is advancing age. Although root caries is not directly related per se, several environmental factors associated with aging are implicated, including the flow rate and quality of saliva. (3, 14) Xerostomia has long been associated with increased caries rates.

Individualized oral hygiene practices may also change with age: manual dexterity is often diminished; older patients may have difficulty extending their arms above the shoulder; they may not be able to hold small objects. (3, 14) Some conditions such as rough root surfaces and the presence of existing restorations enhance plaque retention. A final factor may be the lack of motivation to learn new oral hygiene techniques. (3) Even small amounts of plaque combined with frequent

sucrose consumption can result in root surface caries. (14) Patients who exhibit recession or who have been successfully treated for advanced periodontal disease can be at low risk for the development of root surface caries if maintained through frequent recall appointments. (14)

Clinical Observations

Root caries may exhibit gross cavitation and either a darkened, discoloured appearance or a tacky, leathery feel upon moderate probing or may not exhibit gross cavitation but still have a similar appearance either with or without a tacky, leathery feel upon moderate probing. The tactile evidence is assumed to indicate active lesions. (2)

Root caries provides the visual clue of being various shades of brown or black. The lesion is generally a shallow, irregular shape and tends to spread laterally. It may coalesce with minor neighbouring lesions until it encircles the tooth. Although the lesions may be very extensive, they commonly extend no more than 1/2-1 mm in depth. If the gingival margin recedes further, the lesion seldom spreads apically but a new lesion may develop at the new gingival margin. (4)

There appears to be large differences in the root caries susceptibility of the various teeth. Although the observed rate of gingival recession is similar for each tooth type, various studies have identified a root caries 'attack pattern'. Mandibular posterior teeth are most suscep-

tible followed by maxillary anterior teeth, maxillary posterior, and, least susceptible, mandibular anterior teeth. Mandibular canines tend to have a susceptibility similar to maxillary anterior teeth. Given similar recession in both arches, the interproximal surfaces are most likely to be attacked in the maxillary arch while buccal surfaces are most susceptible in the mandibular arch. (1, 7, 8, 10)

The Dental Hygienist's Role

Root caries may lead to pulpitis, sensitivity to sweets and thermal changes, and/or severe pain. (18) The current principles of cavity preparation were developed for the repair of enamel caries. To apply these principles to lesions on root surfaces is difficult. Compounding the cavity preparation problem is the fact that current restorative materials are more suitable for enamel covered areas than root surfaces. (7) At present, the material of choice for restoration of root surfaces is glass ionomer. (19, 20, 21, 22) Prevention of root lesions is the best choice. Dental hygienists are in a unique position to reduce the incidence of root caries.

i) Observations and Records

When the health history of the patient is updated, new medications should be noted and checked in the CPS (Compendium of Pharmaceuticals and Specialties) for possible side effects. Many

prescribed drugs have a direct or indirect effect on the oral cavity or on dental procedures. One of the most common effects is xerostomia.

Many patients at risk are in a senior age group and may have additional health problems. These health problems should be noted since some conditions, such as arthritis, may affect the patient's manual dexterity.

Hygienists can play an important role in detecting and recording root surface lesions. Early diagnosis and treatment of lesions is very important but early detection requires a heightened diagnostic awareness. (7) The data indicate that 40-50% of adult patients have one or more such lesions. Patients over 50 years of age exhibiting recession show one in five surfaces being attacked. (7)

Charts should diagram the root as well as the crown of the tooth. Hygienists should record recession, root surface restorations and suspected lesions. On subsequent visits, any changes in recession or lesions should be noted. Root surface caries lesions should be differentiated from abrasion, erosion and absorption. (12)

ii) Oral Hygiene Instruction

Plaque removal techniques need to be explained, taught and reinforced. Root surface caries can develop even with small amounts of demonstrable plaque on the teeth. (14) Older adults may be reluctant to learn new oral hygiene tech-

niques, and motivation may be a special problem. There may also be perceptual or communication problems. Plaque removal techniques should be adapted to the individual as well as the individual's oral cavity: the toothbrush handle may need an extension; the handle may be too small for the patient to grip. Interdental cleaning, not simply flossing, needs to be emphasized. Various interdental aids are available. The appropriate aid for the patient should be introduced and, if necessary, adapted for that individual's specific needs.

iii) Scaling and Root Planing

The beneficial effects of scaling and root planing for periodontal health are well known. These same procedures can be applied for root surface caries. The preferred treatment for early lesions is to smooth out the lesion by root planing, and to apply fluoride. (18, 21) The lesion should be planed until the surface feels hard when probed with moderate pressure. This procedure is followed by a fluoride application.

iv) Fluoride

Various authors refer to the cariostatic effect of fluoride on root surfaces. (4, 8, 14, 21) Root surfaces take up fluoride at a great rate compared to enamel, and the concentration of fluoride in the outer surfaces of the root is much higher than in the enamel. (3) The application of fluoride after planing a root surface lesion will arrest most such

lesions. (21) Follow-up daily home fluoride rinses and the use of a dentifrice containing fluoride will increase the host resistance as well as act as bacteriostatic and antimicrobial agents. The use of topical fluorides is the most efficient way of treating initial root caries lesions even at the sub-clinical level, that is, before there is visible evidence of caries. The further development of the carious process may be prevented. (4, 21, 22)

Adults as well as children benefit from fluoridated water. The concentration of fluoride in the outer layer of the root surface increases with increased ingestion of fluoridated water. The solubility of root surface in acid decreases as fluoride uptake increases. As previously mentioned, Stamm and Banting (1980) provided data showing a significant decrease in root surface lesions among those with a lifelong consumption of fluoridated water. (1)

Newburn (1986) suggests the use of a topical fluoride application of 1.1% NaF (5000 ppm) in custom trays for 5-10 min/day or 0.4% SnF₂ gel (1000 ppm) for 5-10 min/day for patients with severe xerostomia and patients who have undergone irradiation to the head and neck. For mild xerostomia, a brush-on SnF₂ gel is suggested. The longer the gel is in contact with the teeth, the greater the fluoride uptake. High risk patients should use gels in custom-made trays. The patient should be taught not to overfill the tray and to keep the tray in for 5 to 10 minutes. (21, 23)

Data concerning root caries and fluoride rinses are limited. In an eighteen month study, a 0.1% NaF rinse or a 0.1% NaF and 0.2% chlorhexidine rinse twice daily was used for cancer patients and no new root caries lesions were observed. It is difficult to get compliance from patients to rinse for one minute; a 5-10 minute rinse may be impossible. Hence, the use of gels in custom trays is preferable. (24)

v) Diet Counselling

Root caries is an opportunistic infection. The data suggest a direct relationship between dietary sucrose and root caries: high level of dietary sucrose, high incidence of root caries. Patients exhibiting a high caries rate, whether it be coronal or root surface caries, may need nutritional counselling.

vi) Frequent Recalls

Patients at high risk for root surface caries benefit from frequent (3-6 months) recalls. Low caries activity has been found in patients on a professional prophylactic regimen every three months, especially when dietary restrictions and topical fluoride applications are also instituted. (2) Frequent professional plaque removal is capable of almost totally preventing the development of root surface caries. (4)

vii) Other Treatment

In addition to these treatment procedures, sealants can be applied to enamel fissures, thereby eliminating etiological niches for microflora and removing sucrose reservoir sites. (21) For patients sus-

pected to be at risk, salivary counts of *S. mutans* can be monitored. (16) If the root caries incidence in these patients does not respond to the preventive treatment described above, the dental hygienist might discuss with the dentist the use of an antimicrobial agent to be used until lower bacterial counts are achieved.

Conclusion

The population requiring dental services is changing toward a higher percentage of older adults, many of whom will be at risk for root caries. Dental hygienists have an obligation to monitor the patient's susceptibility to root surface caries. Dental hygiene care must include those services aimed at the treatment and prevention of root caries; precise oral hygiene instruction and education, accurate clinical observation and record keeping, particular root planing, an appropriate fluoride regimen, and diet modification. ■

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Carranza FA, Perry DA.

Clinical Periodontology for the Dental Hygienist, W.B. Saunders, \$29.50 P.B. 111-301 pps.

Dr. Carranza, Chairman, and Dr. Perry, Assistant Professor, the Section of Periodontology, School of Dentistry, The University of California, have joined forces to produce this refreshing and timely book. Dr. Perry, R.D.H., Ph.D. Education, clearly focused on those aspects of clinical periodontology which are of most relevance to the dental hygienist.

Conceptual aspects of clinical periodontology are presented as a foundation onto which the central roles and responsibilities of the dental hygienist are developed. The general framework of the book is structured such that one is introduced systematically to: the Periodontium in Health and Disease, the Etiology of Periodontal Diseases, the Clinical Examination, the Rationale for Periodontal Therapy, and the Epidemiology of Gingival and Periodontal Diseases.

If the reader is interested in an emphasis on the technical aspects of periodontal instrumentation, the authors suggest that s/he should seek other sources as this topic is not discussed to the extent that a dental hygienist requires.

One should likely avoid a comparison between *Glickman's Clinical Periodontology*, also authored by Carranza, and *Clinical Periodontology for the Dental Hygienist*. It is difficult,

however, not to comment on a number of points. Readers acquainted with *Glickman's* text, will recognize in the Dental Hygiene version, the same excellent quality of the illustrations, diagrams, and print. The process of condensing and reorganizing material from *Glickman's* for the new Dental Hygiene version results in a more concise book but certainly one with much less depth and detail. For example in *Glickman's*, the Tissues of the Periodontium are covered in 77 pages while in the Dental Hygiene book, 19 pages are devoted to the same topic.

The primary reason for this is that in the Dental Hygiene version, little attention is given to histochemical aspects of normal gingiva or to histopathological aspects of gingival disease. In the Dental Hygiene version, minimal emphasis is placed on host response in periodontal disease although antibodies and immune mechanisms are discussed in chapter 5. Trauma from occlusion receives less attention in the Dental Hygiene version than in *Glickman's*, but still it is discussed for the dental hygienist in a more substantial fashion than seen elsewhere. This chapter offers a meaningful and practical approach to occlusion and its impact on the periodontium. This chapter, along with the chapters on periodontal surgery are good illustrations of the assumption under which I believe that this book was written. That is, a basic, thorough, and clear explanation of concepts of periodontology is more appro-

priate for the dental hygienist than extremely detailed material which would perhaps never be read, let alone understood. For the dental hygienist who desires greater depth, s/he is referred to other sources through a listing of references at the end of each chapter.

Perhaps the only shortcoming found with the book under review is the limited degree to which material was developed in the chapters on Plaque Control and Maintenance Therapy. Plaque Control is covered in numerous other resource books and manuals. This is not the case for Maintenance Therapy however, and I believe that the authors missed an excellent opportunity to demonstrate more profoundly the importance of Maintenance Therapy in the treatment of periodontal diseases.

Generally, this is an excellent book and it should be considered a *required text* for all students in dental hygiene. The practicing dental hygienist will find the book a truly enjoyable update and an indispensable reference book.

*Reviewed by Prof. S.C. Gelskey,
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Oral Pathology

John L. Giunta, D.M.D.
2nd Edition, Williams &
Wilkins, 1984
136 pages, Illustrations.
\$15.95 U.S.

The second edition of *Oral Pathology* is a revised and updated version of the 1975 edition. The first edition of *Oral Pathology* was a modular component of the text *Dental Auxiliary Practice: Biological Basis and Clinical Application*. The author, Dr. John L. Giunta is Professor of Oral Pathology at Tufts University School of Dental Medicine and the Forsyth School of Dental Hygiene. The stated intent of this text is to serve as a short, practical introduction to/or review of the principles of pathology and oral diseases. As the author states, this is not a complete text on oral pathology as there are other textbooks that cover the subject in more detail. Therefore, this text focuses on those conditions most likely to be encountered by the Dental professional in a general practice environment.

The text covers eight areas starting with an introductory chapter on the clinical examination, which includes a detailed description of the extra- and intraoral examination. Chapters to follow cover the principles of pathology, inflammation and repair, developmental abnormalities, caries and pulp disorders, mucous membrane pathology, benign and malignant conditions, and oral manifestations of systematic diseases. Do not expect anything in terms of

periodontal disease, the author chose not to include this subject heading due to its thorough coverage in numerous dental textbooks.

The chapter on oral mucous membrane pathology contains thorough coverage of the common viral infections likely to be encountered in the dental office, as well as a good description of the diagnostic tools of biopsy and cytology.

The chapter devoted to oral manifestations of systemic diseases is short, focused only on basic nutritional deficiencies and the subsequent oral changes manifested specifically in the lips and tongue. A limitation in the text is that diseases and disorders with oral manifestations are discussed briefly or not at all, such as diabetes and blood disorders. A major shortcoming of this text is that Autoimmune Deficiency Syndrome (AIDS) and its oral manifestations is not included.

In comparison to other texts, the descriptions and rationale underlying the principles of etiology, disease processes and histology are simplified. The clinical characteristics are addressed in detail as compared to the histological aspects. The author's step-by-step descriptions and explanations of terminology are impressive, especially in the chapters devoted to the principles of pathology and the process of inflammation and repair.

The author's own schematic drawings and charts are very coherent and supplement the often difficult concepts of histology and principles of

pathology. The use of sequential photography of progressive conditions depicting both normal and abnormal is helpful in differentiating healthy from unhealthy tissues.

Limitations of this text are the black and white photographs and drawings. This tends to take away from the detail in some of the examples, however cost of the text must be considered when considering color photographs. In addition, the Bibliography is limited and since issuance of this text, new editions of some of the references have been published.

Basically, this text is a very good reference and/or review for the practicing Dental Hygienist due to its concise explanations of common oral manifestations. As well, the Dental Hygiene educator could make use of the excellent pictorial charts, graphs and schematic drawings contained throughout the text. Likewise, the undergraduate Dental Hygienist who needs a more simplified explanation of the histological principles of pathology and the inflammation and repair process, would find this a very good supplemental resource. For its price, \$15.95 U.S., this text would be an economical addition to one's professional library.

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***Fractures of the Teeth:
Prevention and Treatment
of the Vital and
Non-Vital Pulp***

Enrique Basrani — Translated
by Harold M. Rappaport
Lea and Febriger 1985.

The author, in the preface to his text, states his objective is to "present a more exact look at the diagnosis, prognosis, and treatment of traumatized teeth, with the intention of restoring their specific functions". The 151 pages consisting of nine chapters are well organized and easy to read. The first chapter, and chapters 3 through 7 classify the various kinds of fractures and then gives the prognosis and treatment in the form of case reports. Chapter 2 explains endodontic diagnostic tests, particularly as to their interpretation in relation to tooth trauma. Chapter 8 is a more detailed look at apexification whereas Chapter 9 outlines some clinically relevant rheologic properties of dentin and pulp protective materials. The various chapters are not referenced but rather the author lists an extensive bibliography at the end of the text.

There is little, if any, new material presented in this text. In fact, some of the information, particularly as relates to operative management of fractures is outmoded especially in regard to appreciation of patient esthetics. (Example - stainless steel crowns to hold temporary dressings in the anterior dentition). Current endodontic texts all have a chapter on the management

of traumatized teeth, and I believe the information in these books is as concise with the additional advantages of precise referencing and detailed explanation of diagnostic principles.

In summary, this text is easy to read, well organized and well illustrated; however, it contains very little information not presently available in other endodontic books. For this reason I find this text difficult to recommend.

Reviewed by
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***David Decides About
Thumbsucking***

by Susan M. Heitler, Ph.D.
Photography by Paula Singer
Reading Matters,
Denver Colorado
\$17.95 (US) hardcover \$39.75
(US) paperback (box of 5)
48 pages

This is the story of David, a little boy, who decides (with the help of his father) that it's time to stop thumbsucking.

David looks for answers to why he sucks his thumb. He goes to his sister, his brother and his Mum.

Once motivated, David's parents ease him into a behaviour modification program and, in spite of set backs, David reaches his goal.

This book is easily read to young children who are still thumbsuckers. No doubt they will relate to David's feelings of anger, frustration and under-

stand the bitter-sweet comfort he derives from his habit.

Better than even this, though, is the parent guide in the book that is a gold mine of information for Mums and Dads who worry about thumb-sucking in older children.

The author addresses the issue of infant thumbsucking vs pacifiers and gives parents advice on the toddler who sucks. She also distinguishes between 'casual' sucking and vigorous, frequent sucking that can be damaging with pre schoolers and school-age children.

Behaviour modification is not presented as THE solution to thumbsucking but it is shown as a positive way to break a habit if proper motivation exists and both parents and child can endure.

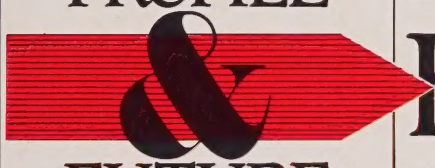
This is an excellent book, well illustrated with four-colour photographs. It would be well-placed in an office waiting room or as a reference for both parent and professional.

Reviewed by Elizabeth McKee, former editorial consultant to the CDHA Journal, a parent, and freelance writer based in Ottawa, Ontario.

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The Canadian Dental Hygienist/Probe
Volume 20 No. 1, 2, 3, 4, 1986
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9:00 à 12:00
Dr. Marcel Tenenbaum
Gériatrie:
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programme d'hygiène
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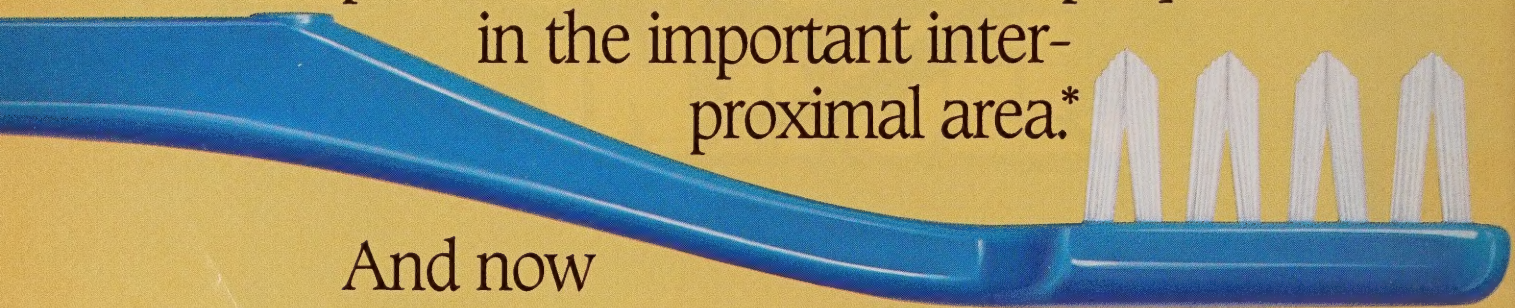
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A new version of the Jordan V Tuft advantage, clinically proven to remove more plaque.

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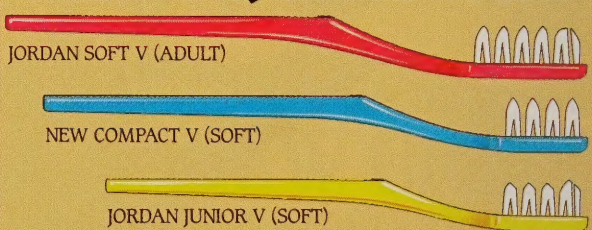


And now that advantage is available in a new version – the Jordan Compact V, specially designed to allow patients with a smaller dental arch to reach all surfaces of their teeth comfortably.

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*"Evaluating cleaning efficiency of different toothbrush designs and textures". Sam L. Yankell et al., University of Pennsylvania, J. Soc. Cosmet. Chem. (May/June, 1983)
"Access to interproximal tooth surfaces by different bristle designs and stiffness of toothbrushes." Per Nygaard-Ostby et al., Jordan, Oslo, Scand. J. Dent. Res. 1979.

"An in vitro study of the relative effectiveness of toothbrush cleaning/coverage." Sam. L. Yankell, University of Pennsylvania, J. Dent. Res. 1979.
"Role of brushing technique and toothbrush design in plaque removal." Axel Bergenholz et al., University of Umea, Scand. J. Dent. Res. 1984.

For further information write to
"The Jordan Toothbrush",
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A Professional Perspective

Having recently participated in a CDHA Membership Workshop, feelings of respect and enthusiasm were rekindled as we worked together to develop strategy for future membership campaigns. During this time, thought was also given to the term "professionalism" and what it means to the dental hygienist.

A profession by definition is a calling requiring specialized know-

ledge and often long and intensive academic preparation. A professional is characterized by or conforms to the technical or ethical standards of the profession. It is interesting to note that in the last issue of *Probe* "Quality and Competency Assurance" was addressed. To the average individual, not involved in the academic world, this simply means that standards must be set in order to judge the competency level of the individual as well as the quality of the work performed.

One of the steps on the road to achieving the status of a profession is to be self-regulating. In order to be self-regulating we must have a set of standards

which all hygienists across Canada must meet in order to be able to practice dental hygiene. These external controls are necessary if we are to take on the responsibility of disciplining our professional colleagues.

Not only are external controls necessary but individual internal controls as well. A true professional needs very few external controls. He or she knows what the Code of Ethics is and endeavors to work by that code. Professionalism is an attitude – it's a commitment to excellence!

We, as dental hygienists and members of CDHA must endeavor to promote an attitude of professionalism amongst our colleagues.

Even After Brushing
With Fluoride,
Teeth Need
The Fluoride
In Listermint.

Here's Clinical
Evidence.



Dental Hygienists do require specialized knowledge and intensive academic preparation before entering the work force; however, there are instances where the attitude of professionalism needs to be improved.

The membership committee has spent numerous hours trying to find ways in which to entice dental hygienists to join CDHA. The core members will always be members because they are strongly committed and know that without CDHA dental hygienists would have no political voice – no structure to which government or other professional groups could direct their queries. These are the members who are

“inner directed” – they have a strong self-image of themselves as professionals which carries them beyond the boundaries of their day-to-day lives. They see the benefit of continuing education – and strive to provide their patients with the best care possible. They see dental hygiene as a lifetime career – not just a job which they leave at the end of the day – and so are committed to the future of dental hygiene! We *must* join together as a strong, unified body striving for excellence, planning for the future of a profession which has much to offer

Canadians in their quest for good oral health! ■

Laura Mowat
CDHA Past Pres./
Student Membership Chairman

“My patients get plenty of fluoride from brushing and other sources. Why on earth would I recommend a fluoride rinse?” We understand your doubts. But the accumulation of evidence from independent clinical studies* has become so persuasive, we believe it will overcome your skepticism.

EVIDENCE OF ADDED PROTECTION.

Reviews of numerous independent studies^{1,2,3} have concluded that a fluoride rinse enhances the (caries-reducing) effects of fluoride dentifrice. Additionally, repeated applications increase prophylactic value. Studies have also shown⁴ that a fluoride rinse reduces caries among people receiving optimal water fluoridation.

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We welcome your comments and inquiries.*

*Please contact the Director of Professional Services, Warner-Lambert Canada Inc., 2200 Eglinton Ave. E., Scarborough, Ontario M1L 2N3.

**neutral pH, 0.22 mg/mL of sodium fluoride (100 ppm fluoride ion) 1. Torell, P., Ericsson, Y.: Int'l workshop on fl/dental caries red. (1974). 2. Ripa, L.W. JADA 102:477-481 (1981). 3. Birkeland, J.M.; Torell, P.: Caries Res. 12 (Suppl 1), 38-51 (1978). 4. Driscoll, W.S.; Swango, P.A., Horowitz, A.M.; Kingman, A. JADA 105:1010-1013 (1982). 5. Koulourides, T. Data on file Warner-Lambert Canada Inc. 1985.

PAAB
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LETTERS

Dear Ms. Gallagher:

I received your letter of March 23, 1987, in which you express your strong exception to our television advertising that failed to state categorically that licensed hygienists are professionally qualified to remove tartar, as are dentists. You are, of course, quite properly disturbed by our regrettable lapses.

I have had reported to me the particulars of your meeting with our Consumer and Professional Relations Director, Myra Lofts, and Vice-President, General Counsel, Ron Bonar. I have also seen, and personally approved, the letter of apology that is intended to be sent, with your Association's approval, to all of your members.

It is my sincere hope that as a result of these steps, you and your Executive Council, as well as your members, will understand how strongly we at Colgate feel about your concerns and what corrective steps we have taken.

I add my own personal regrets to those already expressed and hope that we can put this unhappy occurrence behind us and take up, once again, the very co-operative relationship that we have previously enjoyed.

V. Mendes de Franca.
President, Colgate-Palmolive Canada

Madame Gallagher,

Vous pouvez être fière de votre guide dentaire; c'est, à ce jour, le plus bel outil concernant la santé dentaire du troisième âge. L'honneur revient principalement à Joanne Clovis et à «son» comité. Ensemble, ils ont synthétisé de façon remarquable les principales préoccupations inhérentes au vieillissement.

Afin de faire profiter au maximum notre population vieillissante de vos précieux conseils, nous projetons une distribution à tous les intervenants, autant du secteur public que privé de notre territoire.

Dans l'expectative d'avoir une réponse sous peu, nous profitons de l'occasion pour vous exprimer notre admiration. Ce genre d'initiative vouée à l'éducation et à la prévention ne peut que renforcer les liens entre les principaux partenaires de la profession dentaire. Encore une fois, bravo!

Veuillez accepter, Madame Gallagher, l'expression de nos sentiments les meilleurs.

Dear Ms. Gallagher:

You certainly have reasons to be proud of your dental care guide. It is the best tool dealing with senior citizens' dental health up to now. Special credit should be given to Joanne Clovis and "her" committee. Together, they summed up the main concerns related to aging in a remarkable way.

In order that our aging population get maximum benefits from your valuable advices, we plan to distribute this publication to all those concerned in the public as well as the private sectors in our region.

We wish to express our admiration for your work. An initiative of this kind dedicated to education and prevention cannot but strengthen relations between main partners in the dental profession. Once again, bravo!

Dr Raymond Milette
Dentiste-conseil



Dear Ms. Gallagher:

I am writing to thank you for your most informative package "Smile For Life".

We have taken the liberty of sending copies of the section entitled "Caregivers" to all our Chapters in Ontario. So often we have been asked by them for this type of information and had nothing to supply.

The publication is timely and appreciated.

Eileen Bigley
*Executive Director,
Alzheimer Association of Ontario*

PREVENTIVE MEDICINE



Recommending a therapeutic oral rinse to fight plaque and prevent gingivitis is not the exception. It's the rule. So a complete oral hygiene program should include the use of Listerine Antiseptic.

Clinical studies show that using Listerine Antiseptic twice a day reduces plaque build-up from 20-50% compared to brushing alone.^{2,3,4} Studies also confirm that

it significantly reduces and helps prevent gingivitis as compared with vehicle and water control rinse scores.¹

So in addition to regular check-ups, brushing and flossing, recommend Listerine Antiseptic to your patients. When it comes to reducing plaque and preventing gingivitis, make Listerine Antiseptic the golden rule.

References: **1.** LAMSTER, I., et al.: Clin. Prev. Dent., 6:12 (1983). **2.** MENAKER, L. et al.: Ala. J. Med. Sci., 16:71 (1979). **3.** ROSS, N.M., et al.: Warner-Lambert research report #955-0875 (1976). **4.** YANKELL, S.L., et al.: Warner-Lambert research report #955-0893 (1976).

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LISTERINE
**AN EFFECTIVE TOOL AGAINST
PLAQUE AND GINGIVITIS.**



Murray Elston
Health Minister

Ontario Dental Hygienists achieve governing body

TORONTO, March 12 - Dental hygienists in Ontario will have their own governing body, while the College of Nurses of Ontario will continue to govern both registered nursing assistants and registered nurses.

The announcement, made today by Health Minister Murray Elston, was reached after extensive consultations as part of the Health Professions Legislation Review.

The review, headed by Toronto lawyer Alan Schwartz, was set up in 1983 to examine all regulated and unregulated health professions in the province.

Mr. Elston said the hygienists' governing body will be established when new health professions legislation, expected to be introduced next year, is passed.

"Giving hygienists their own separate governing body will increase their effectiveness. It will allow them to have the mechanisms and authority to address their own issues," Mr. Elston said.

Mr. Elston said giving RNAs their own governing body was carefully considered, but significant differences between RNAs and dental hygienists justify different regulatory structures. Dental hygienists currently are governed by the Royal College of Dental

Surgeons of Ontario. They are *not* members of the college, and sit on the college council as non-voting observers only. RNAs *are* members of the College of Nurses, and both RNs and RNAs who sit on the college council are eligible to vote.

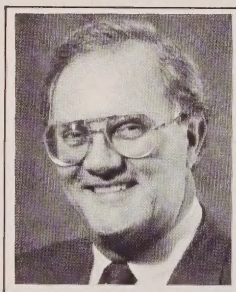
In addition, most dental hygienists are employed by dentists, and this employer/employee relationship has led to regulatory disagreements. RNs and RNAs, on the other hand, are employed mainly by institutions and there is not an employer/employee relationship between the two groups.

Mr. Elston also said that in making these decisions, he took

into consideration the fact that most dental hygienists want their own governing body. Although the Ontario Association of Registered Nursing Assistants favored having its own governing body, other representatives of RNAs supported a single governing body.

On April 3, 1986, Mr. Elston announced that 25 health professions, including RNAs and dental hygienists, would be regulated. Today's announcement is part of the process of determining which of these professions will have their own governing body or will share a governing body with another profession.

Requirements for Registration of Dental Hygienists in British Columbia



Roy Thordarson
D.M.D., F.I.C.D.

Dr. Roy Thordarson, Registrar of the College of Dental Surgeons for the past ten years has been appointed Executive Director. Dr. Thordarson is a graduate of the University of Manitoba Dental School and was in private practice for fourteen years before joining College staff.

"I believe there is misunderstanding among dental hygienists and dental practitioners concerning the changes to the requirements for B.C. registration. I hope that the following is helpful in your understanding.

The new requirements for registration are the same as those that were in place prior to 1983 with one very significant exception. Graduates of programs where a Board Examination exists must successfully complete that State or Provincial Board Examination prior to being eligible for registration in British Columbia without examination. Specifically, a graduate from a Washington Dental Hygiene Program must take a Board Examination prior to being eligible to practise in Washington State. In order to practise in British Columbia, that individual must complete either the Washington State Board Examination or the B.C. Board Examination prior to being eligible. The same would hold for graduates from Ontario programs."

CDHA Meetings Ottawa April 1987

- Dianne Gallagher, President; Ellen Brownstone, President-Elect; and Carol Worobey, Executive Director attended the C.D.A. Board of Governor's meeting April 2 and 3 in Ottawa.
- April 4 & 5, a membership strategy meeting was held to identify target groups for the 1988 membership campaign. The strategy developed will be presented to the C.D.H.A. Board in June for their approval.
- C.D.H.A. Executive held its interim meeting in Ottawa April 4 & 5th. Discussion included workshop planning for the Annual Board of Directors meeting in June. Workshops include:
 - 1) Public Relations
 - 2) Long Range Planning
 - 3) Certification
 - 4) Capitation
 - 5) The Epp Report
 - 6) Membership

C.D.H.A. members are invited to become affiliate members of the Saskatchewan Dental Therapists Association by contacting:

Janet Keen, Registrar
S.D.T.A.
P.O. Box 1281
Swift Current, Sask.
S9H 3X4

By becoming an affiliate member, hygienists from across Canada will have the opportunity to learn about another member of the dental team. Hygienists educated in Saskatchewan have previously completed the Dental Therapy Program, hence the designation S.D.T./R.D.H.

Report of C.D.H.A. visit to A.D.H.A. headquarters Chicago, Ill. February 12, 13, 1987

The Canadian Dental Hygienists' Association had the opportunity to meet with the American Dental Hygienists' Association in Chicago in February of this year. Discussions were held to:

- become informed of A.D.H.A.'s administrative and professional structure, systems of operations, current status re: relevant dental hygiene issues in the U.S.
- meet professional staff and officials in A.D.H.A. and establish a rapport.

— exchange information between C.D.H.A. and A.D.H.A. concerning Dental Hygiene matters common to both organizations at this time.

— discuss the formalization of a liaison committee between A.D.H.A. and C.D.H.A.

— identify individuals within A.D.H.A. and C.D.H.A. who will serve as "contact" people to provide a continuous exchange of information between the associations.

Action resulting from these meetings will be presented to the C.D.H.A. Board of Directors in June.



From Left to Right: Audrey Newcombe, C.D.H.A. P.R. Officer, Connie Edstrom-Tussing, A.D.H.A. President, Dianne Gallagher, C.D.H.A. President, Ellen Brownstone, C.D.H.A. President-elect

VANCOUVER COMMUNITY COLLEGE

Forty students in total are presently enrolled and are close to completion of their first year at V.C.C.

Many instructors and administrators have been working very hard to continue the tradition of excellence in Dental Hygiene education that has characterized British Columbia in the past.

Suzanne Sunell has recently been appointed Department Head.

Congratulations on a successful first year V.C.C.

UNIVERSITY OF ALBERTA, EDMONTON

Forty students are presently enrolled in each year of the Dental Hygiene Program and applications for next fall's enrollment have surpassed the 400 mark.

There are three full-time faculty in the Dental Hygiene Department headed by Barbara Zier as Chairperson, and eleven part-time instructors.

A proposal for a B.Sc.D.H. Program has received approval in principle, however, economic restraints have resulted in a delay to seek approval of the next stage.

A curriculum review which was just completed for the diploma program, resulted in many proposed changes including field experience in community health for first year students and additional courses in communication, practice management, comparative odontology and hospital rotations in obstetrics,

pediatrics and chronic care for second year students.

The first clinical dental hygiene refresher course was held February 16-20, 1987 with twenty-eight dental hygienists and two dentists participating. The course included active participation in both didactic and clinical sessions concentrating on updating instrumentation skills in calculus detection, periodontal probing, root planing and other areas of dental hygiene practice. A second course is being planned for May, 1988.

UNIVERSITY OF MANITOBA, WINNIPEG

Twenty-six students were admitted into the first year of the Dental Hygiene Program in September of 1986.

A three year long comprehensive review of the School of Dental Hygiene was completed in September 1986 which included a study of administration, teaching, student performance, community and professional activities, research, scholarly/creative work, employer/graduate satisfaction, post diploma education, admission requirements and curriculum.

A student/faculty exchange program with Dalhousie University was implemented in February 1987. We look forward to hearing more about this exciting undertaking.

Guest presentations were made to the students by both Dianne Gallagher, President C.D.H.A. and Professor M. Forgay, Director, School of Dental Hygiene, Dalhousie University and

Chairman, Federal Government Working Group on the Practice of Dental Hygiene.

Full accreditation status for a 5 year period was awarded to the School of Dental Hygiene by the council on education and accreditation of the C.D.A. in June 1986. Congratulations U. of M.

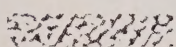
CONFEDERATION COLLEGE, THUNDER BAY, ONTARIO

Dental Hygiene students at Confederation are excited about being selected to participate in the pilot project on *Alternate Examination Procedures for Dental Hygienists*. This basically means that in lieu of the standard Provincial Licensure Examination, a team from the R.C.D.S. will be visiting the program for a 3 day period of time to observe several clinical sessions and become familiar with the process by which students are evaluated clinically. If the team is pleased with what they see, the students will be granted licensure by the R.C.D.S. without further individual examination. Confederation is one of two colleges selected for this project, Niagara College is the other.

Program co-ordinator, Salme Lavigne, along with Niagara's co-ordinator have been actively involved in developing the ground rules with the R.C.D.S. for this project. We all anxiously await the results of this exciting endeavor.

Some curriculum revisions have been made for the third semester of the Dental Hygiene Program which include a new geriatric component and further integration of case studies.

Confederation College's Dental Assisting and Dental Hygiene Programs both received C.D.A. accreditation in June 1986. Congratulations Confederation.

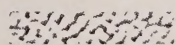


CAMBRIAN COLLEGE, SUDBURY, ONTARIO

Claudette Tyndall is on a leave of absence for the 1986-87 academic year and will be returning for September 1987.

Suzanne Knox has been appointed co-ordinator of the Dental Health Programs at Cambrian College. Suzanne brings with her ten years of experience in dental hygiene and dental assisting education at the community college and university level.

Both the Dental Assistant and Dental Hygiene Programs received full accreditation status by the Council on Education of the C.D.A. in June of 1986. Congratulations Cambrian.



ALGONQUIN COLLEGE, OTTAWA, ONTARIO

Several significant changes have been made to Algonquin's Dental Hygiene Program this year.

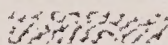
The first is the addition of a six week, third semester for the May/June period which will include additional clinical hours, seminars, and specialty courses designed to integrate theory with ongoing clinical experience.

The second is the commencement of a two year study of a number of tests for possible utilization as part of a selective admissions process. Test results will be analysed for efficiency in predicting students

final grades in the Dental Hygiene Program. Tests demonstrating a useful degree of predictive validity will be considered for inclusion in a test battery to be used for student selection for the 1988/89 academic year.

A "Remedial Assistance Program" (RAP) has been devised by faculty to assist students entering the Dental Hygiene Program from backgrounds other than Ontario Colleges of Applied Arts and Technology, Dental Assisting Programs. Many of these non-C.A.A.T. dental assistants were deficient in theoretical backgrounds required to pursue dental hygiene training. The RAP package includes refreshers in biological sciences, biochemistry, dental anatomy, medical and dental terminology and radio-graphy theory.

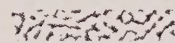
Lastly, faculty have adopted the original George Brown College computerization of clinical grades software package and are using it in their Dental Hygiene Program.



GEORGIAN COLLEGE, ORILLIA, ONTARIO

The students and faculty of Georgian College, Dental Auxiliary Programs hosted a joint Continuing Education session for the dental professionals in Simcoe-Muskoka County. The Dental Hygiene students prepared table clinics entitled "Thumb sucking Intervention" and Geriatrics - Everybody's Future". Another workshop is being planned for April by the students.

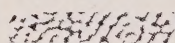
The faculty at Georgian are co-ordinating the Dental Auxiliary Educators Workshop for June 5, 6, and 7, 1987. The main area of discussion will be "Learning Styles" with Dr. David Hunt, OISE.



GEORGE BROWN COLLEGE, TORONTO, ONTARIO

The faculty at George Brown College are looking forward to a possible higher enrollment in Dental Hygiene in the near future as there appears to be a great demand for more graduates in the Toronto area.

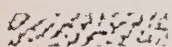
Harriet McCabe has been actively involved in the Pilot Project Sub-Committee for Alternate Examination Procedures for Dental Hygiene Programs in Ontario, a joint venture of the Royal College of Dental Surgeons and the Ministry of Colleges and Universities which is to be implemented at Confederation and Niagara Colleges in May, 1987. Harriet looks forward to the results of this project and future implications for all Ontario Dental Hygiene programs.



NIAGARA COLLEGE, WELLAND, ONTARIO

Dental Hygiene Co-ordinator, Susan Matheson, has been busy preparing for the R.C.D.S. pilot project visit which will take place in May, 1987 and reports that the Dental Hygiene students are excited about participating in this endeavor.

Niagara College also received full accreditation status from the Council on Education of the C.D.A. last June. Congratulations Niagara.



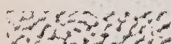
FANSHAWE COLLEGE, LONDON, ONTARIO

Joan Eby is on a sabbatical leave for the 1986/87 academic year and Lynn James is presently the acting co-ordinator. Barbara Zaritsky, a former part-time teacher from Niagara College, has been teaching in the Dental Hygiene program on a full-time sessional basis during Joan's absence.

The Dental Hygiene program has an annual intake of 16 students utilizing an eight chair clinic.

The administrative thrust during the 86/87 year has been towards curriculum revision and cost-cutting measures while maintaining quality of education. The basic science component will be enhanced in the dental assisting area and in the Dental Hygiene program, there will be a greater emphasis on the dental specialties, particularly geriatric dentistry.

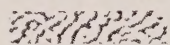
Fanshawe's Dental Assistant and Dental Hygiene Programs received full C.D.A. accreditation in June, 1986. Congratulations Fanshawe.



JOHN ABBOTT COLLEGE, MONTREAL, QUEBEC

The C.D.A. accreditation team visited John Abbott College during the first week of February. Because classes started the last week of January, this was quite a way to start the Winter Semester for 1987. During March, the Admissions Committee selected students for the Fall Semester 1987 - graduation class of 1990. For Dental Health Month in April the students will participate with the Mount Royal Dental Society.

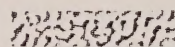
The annual graduation dinner-dance will be held on May 15th with commencement in June. Congratulations to the class of 1987!



WASCANA INSTITUTE, REGINA, SASKATCHEWAN

Eleven students are currently enrolled in the Dental Hygiene Program. Since the clinical component is open-ended and competency based, students complete the program at their own rate usually between the first of May and the first of June. Admission is still restricted to graduate Saskatchewan Dental Therapists.

The program was accredited in the fall of 1980 and the C.D.A. accreditation team re-evaluated the program in February, 1987.



DALHOUSIE UNIVERSITY, HALIFAX, NOVA SCOTIA

The School of Dental Hygiene is at the mid-point of a comprehensive review of its resources, policies and curriculum. The Unit Review Committee is a broadly based group including dental hygiene faculty and students, dental faculty, members of the Nova Scotia Dental Hygienists' Association, the Nova Scotia Dental Association, and the provincial Department of Public Health. The first stage of the review dealt with policy issues. The second stage, now under way, is reviewing and will make recommendations concerning administration, admissions, curriculum, teaching, support staff and services, and the establishment of a degree program. An external curriculum consultant is assisting with appropriate aspects of the review.

There are 40 students per class in the two year diploma program.





The Ontario Dental Hygienists' Association welcomes the announcement by the Honourable Murray Elston, Minister of Health, that the Ontario government has approved self-government for the dental hygiene profession.

Laura Dempster, President of the Association stated that "the announcement by the government provided recognition that dental hygienists are in the best position to regulate dental hygiene in the interest of the people of the province".

The dental hygiene profession looks forward to a constructive relationship with the dental profession and other dental health care professions in the service of the people in Ontario.

Dental hygienists are skilled professionals providing a comprehensive range of preventive dental health care services to the public, including dental health education and clinical treatment services for the prevention of tooth decay and gum disease, and research and consulting.

"With the co-operation of the dental profession, we look forward to helping to extend our services to those currently underserved, notably nursing homes and other health care facilities, and helping to develop new community services such as home dental care for the elderly."

Through self-government, dental hygienists, the primary providers of preventive dental health care services, anticipate being of even greater service to the public.

The O.D.H.A. would like to take this opportunity to sincerely thank all dental hygienists for their interest, encouragement and support during our activities with the Health Professions Legislation Review. Thanks to the efforts of so many, we have achieved our goal of self-regulation.

*Laura Dempster
President, O.D.H.A.*

Dental Hygienists in British Columbia, 1985:

The following article is a summary of a report based on an October 1985 survey conducted by Health, Manpower Research Unit, University of B.C., in which all B.C. dental hygienists participated.

A Survey of Demographic, Educational and Career Patterns

Summary:

The population of dental hygienists in British Columbia is of an extremely homogenous nature, and is comprised of 97.6 percent females, a married contingent of 64 percent, and a mean age of 33.4 years.

Most appear to be in the early stages of the family cycle. Just over half have no dependent children. Two-thirds of the dependent children of the other half tend to be in the youngest age cohort, i.e. under six years of age.

The educational profiles of dental hygienists in British Columbia show an overwhelming contingent of Diploma or Certificate holders (93.4%), but 5.9 percent had completed their training at the baccalaureate level. Just under half, or 45.1 percent had com-

pleted their basic dental hygiene training in British Columbia.

An examination of the graduating years of the respondents reveals a large cohort of very recent graduates. Almost one-third have graduated since 1980.

Most dental hygienists hold a current licence (96.3%), but 13 individuals (3.2%) hold valid permits in order to practice. A majority of dental hygienists are employed by solo general dentistry practitioners (54.7%), but 21.5 percent are employed in group practices of the same type. The remainder are employed by solo specialty practitioners, public health agencies, post-secondary education dental hygiene programs and other settings.

Dental hygienists exhibit a tendency to be long term and steady employees. A large proportion, 58.7 percent of this group are full time hygienists.

Approximately half worked between 31 and 40 hours per week. Also, 42 percent indicated that they had worked 48-52 weeks in the past twelve months. On the average, their dental careers have spanned 9.4 years. Tenure in the current position is shorter, with 32.6 percent of the respondents having commenced their current jobs since 1980. Previous experience in the dental office was reported by 43.1 percent of the respondents, either in a clinical or clerical capacity, but most frequently as chairside assistants (63%). Most had only worked in one such position. The data shows that the activities of dental hygienists are of a very focussed nature. In the primary positions of the hygienists, on the average, 74.7 percent of the workday was devoted specifically to clinical work. The median response was higher, at 80 percent.

However, dental health education also figured prominently, as one-third of the respondents claimed to spend between 20 percent and 39 percent of their working time in this area.

Two-thirds of the survey respondents indicated a hypothetical interest in participating in several areas in the future. The major area of interest remained clinically oriented, as indicated by over 80 percent of the responses. Marital status was found to have a significant impact on one's propensity to work full or part time. Of all single hygienists, 86.2 work full time, while only 4.6 percent work part time. Similarly, 48.0 percent of all single hygienists reported working over 30 hours a week in their primary job. In contrast, markedly fewer married hygienists reported this same number (32.2%), while the proportion for the remaining hygienists rested in between that of these two sets (41.7%).

Employment status and working hours were both influenced by the presence of dependent children in the household. Hygienists with children worked significantly fewer hours per week than their counterparts with no dependent children.

Differentiation between age cohorts of the dependent children strongly suggests that currently, while the propensity to work full time decreases with the presence of dependent children, it increases as the age of the youngest child increases.

The average hourly rate of the dental hygienists surveyed is \$23.43, a statistically significant correlation was found to exist between wage rates and the number of years a hygienist has worked in the field. However, the exact nature of this relationship is difficult to define. Over 40 percent of respondents were paid daily, an

additional 28 percent were paid on an hourly basis.

Approximately one-third reported receiving cost of living bonuses, merit bonuses and unspecified miscellaneous bonuses of, on the average, \$186.40 each. Paid time off was most frequently granted for vacations (68%), sick leave (42%) and statutory holidays (58%), but comparatively rarely for continuing education or conventions.

A relatively high proportion of the responding hygienists indicated that they did not receive a variety of major benefits, including a pension plan (74%), an extended health plan (73%) or the provincial medical plan (70%). However, one-half did report "continuing education" as a benefit while one-third stated that they did receive dental coverage from their employer. ■

Carol Kline R.D.H.
*BCDHA Representative to
Health Manpower Research Unit
Reprint Outlook Spring 87*

A complete report S:23 Dental Hygienists in B.C., 1985 is available from Division of Health Services Research and Development Health Services Centre 4th Floor I.R.C Building University of B.C. Vancouver, B.C. V6T 1Z6

Dates to Remember 1987

- June 5 - 7 ■ C.D.H.A.
Annual Board
of Directors
Meeting
Ottawa, Ontario
- June 11 - 13 ■ S.D.H.A.
Convention
North Battleford,
Saskatchewan
- June 17 - 24 ■ American
D.H.A. Annual
Session
St. Louis,
Missouri
- June 18 - 21 ■ B.C.D.H.A.
Convention
Vancouver, B.C.
- June 28 -
July 1 ■ Pacific Rim
Conference
Banff, Alberta
- July 16 - 18 ■ Second
National Dental
Hygiene
Research
Conference,
Iowa City, Iowa,
USA

1988

- August 21 - 24 ■ C.D.H.A.
Convention
Edmonton,
Alberta

1989

- June - July ■ International
Symposium on
Dental Hygiene
Ottawa, Ontario



Charla Lautar-Lemay *RDH, BSC,*
John Abbott College
Quebec

Traditionally dental hygienists have been employed in private practice, public health, and educational settings. Dental hygienists are now diversifying their employment options in the business world. For example, pharmaceutical companies are employing dental hygienists in the health, dental or professional divisions.

Recently, I have been involved with the computer industry. My task was to develop a dental hygiene tutorial utilizing educational and dental hygiene principles to teach instrumentation to dental and dental hygiene students (or practicing clinician who wish to review or update their knowledge. I received a grant (to pay my salary) from the Quebec government and obtained a semester leave of absence from my employer, Cegep John Abbott College. I was considered an employee of ICAM Technologies, a computer firm specializing in computer aided design, manufacturing and computer aided learning. I was fortunate in that the president of this company had an interest in biomedical technology and was willing to cooperate with my project. My role was to design frames and to work with a programmer. Through this opportunity, I not only had the chance to review the instruments and technique of scaling and root planing, but to learn about computers. My previous knowledge was limited to a few computer terms, record keeping, statistics and grading. I knew little about actual programming, graphic capability, and screen design.

Through this experience not only was I exposed to the "world of computers" but I was able to utilize my educational and dental hygiene expertise in another mode - that of the private computer industry sector. Although as an instructor I was fortunate to obtain funding from the Ministry of Education, I would encourage others to take a chance. Being away from routine gave me the break so needed to prevent burn-out and the time to explore another dimension of dental education. I was able to participate in a greater scale at conferences (not having the teaching commitment plus having more time to prepare presentations). Spending my working day close to programmers meant that I had easy access to needed computer information, while being away from my routine work environment meant freedom from interruptions with more time to delve into the literature. If you have an idea (a fantasy) on how you could use your dental hygiene skills, knowledge, or experiences, fill out grant applications, knock on doors, and broaden your horizons as a dental hygienist. ■

A YEAR IN THE LIFE OF A C.D.H.A. REP



For the past several years, I have been involved with C.D.H.A. as a representative to the Canadian Dental Hygienists Association Council on Education and Accreditation, the Association of Canadian Faculties of Dentistry and as Chair of the C.D.H.A. Education Committee.

These positions are interesting, often demanding but always enjoyable. All are related to some extent with the common thread being education.

Education Committee

This is a committee of one without specific terms of reference or duties.

There are miscellaneous requests for information from coordinators of new programs often related to requirements for accreditation or to curriculum. Sometimes the requests are from prospective dental hygiene students inquiring about the location of dental hygiene schools and entrance requirements.

At times, letters of support are written for dental hygiene programs threatened with closure. Lists are kept of all of the dental hygiene schools in North America as well as the names of the institutions offering bachelor and graduate degrees.

Occasionally, letters are written to manufacturers of dentifrices when their advertising is misleading.

Last year I helped organize the C.D.H.A. Continuing Education Conference and was co-chairperson of the scientific session for the C.D.H.A. Convention.

For the past two years I have been able to attend the American Association of Dental Schools meeting. This is a large gathering of dental and dental auxiliary educators from Canada and the United States. The A.A.D.S. provides an excellent opportunity for an exchange of ideas and information with people from schools in both countries.

Members of the A.A.D.S. may join a number of discipline-related sections and attend their scientific programs. The Dental Hygiene Section which has been undergoing rapid growth and development has been particularly exciting in the past few years.

Next year, for the first time, the A.A.D.S. meeting will be held in Canada and has been scheduled for Montreal in March.

The Canadian Dental Association Council on Education and Accreditation

This council is composed of a group which represents dental educators, administrators, general practitioners, dental specialists, registrars, students, dental assistants and hygienists.

Meetings are held on an annual basis to determine educational policies which will be adopted by C.D.A. Reports of accreditation site visits are reviewed and an accreditation status is awarded or

denied the programs which have been surveyed.

Surveyors are selected by the Council from educators across the country, various dental specialty areas as well as from basic science professors, general practitioners, hygienists and assistants.

The Council has two committees, one which reviews dental programs and the other which reviews dental hygiene and dental assisting programs making recommendations to the full Council.

C.D.A. accredited programs enjoy a reciprocal agreement with the American Dental Association Commission on Accreditation. The A.D.A. annually publishes a list of all of the United States and Canadian accredited programs. Requirements for accreditation are similar in both countries and provide a measure of portability to dental, dental hygiene and dental assisting graduates in Canada and the United States.

My association with this C.D.A. Council has reinforced my belief in the team concept. Each group is recognized for its unique characteristics and capabilities and there is a strong spirit of co-operation among the members.

The Association of Canadian Faculties of Dentistry

The structure of the Association of the Canadian Faculties of Dentistry bears some similarities to the American Association of Dental Schools, although it operates on a much smaller scale. A.C.F.D. is governed by a House of Delegates composed of representatives of the ten Canadian dental school programs; the armed forces school; Sections representing dental auxiliary educators, clinic administrators

and curriculum co-ordinators; Education and Research Committees.

The House meets annually and there is usually a Biennial or Triennial conference at which time a full scale research and education program is presented. Noted educators and researchers are featured but there is also an opportunity for novice researchers to present the results of their studies.

The most significant spinoff of the A.C.F.D. conference is being able to meet other Canadian educators and researchers.

My association with A.C.F.D. goes back several years and at various times I have been a member of the Education Committee, a faculty delegate and chairperson of the Dental Hygiene Section. Currently, I chair the newly named Section on dental Auxiliary Educators. The change of name was made at the last Biennial Conference so that more affiliate members could become active in A.C.F.D.

Membership is open to educators from all accredited dental hygiene and dental assisting programs. Affiliate membership has been growing steadily during the past few months and there are now sixteen institutional members.

Summer Teaching/Management Institutes are sponsored by A.C.F.D. and are funded by the Canadian Fund for Dental Education. They are open to faculty from all A.C.F.D. member institutions.

A.C.F.D. is a dynamic organization with the goal of improving the educational experience in Canadian dental institutions. In an effort to achieve this goal, surveys have been conducted to determine the views of dental students on their educational experience. A study to determine the working conditions of faculty has been

planned by the Education Committee and will be conducted during the coming year.

Representing C.D.H.A. keeps me busy but it is fun and is a great learning experience. ■

Kate MacDonald
Associate Professor
School of Dental Hygiene
Dalhousie University

RESEARCH CONFERENCE FOLLOW-UP



In the fall of 1982, the first conference on dental hygiene research, co-sponsored by the Federal Government Working Group on the Practice of Dental Hygiene and the University of Manitoba, School of Dental Hygiene was held in Winnipeg. As a four-year follow-up to the Conference, the conference participants were surveyed to determine their involvement in research-oriented activities.

Results of the survey indicate continuing interest and involvement in research. Seven conference participants have completed research-oriented masters programs since the Conference, and two are presently enrolled in Ph.D. programs. Four respondents reported they are presently enrolled in masters programs, two of these involving research. Two more are in baccalaureate programs.

Eleven conference participants reported taking non-credit courses or attending workshops concerning research, and eight have attended research meetings or symposia. Twelve respondents reported having a total of 44 research articles published, and 27 other publications had been authored by 9 conference participants. Eleven research or research training grants had been awarded to conference participants, and there was one project awaiting a funding decision. Nine respondents cited one or more research projects presently under way, and six have further projects in planning stages. Although the survey results indicate an encouragingly high general level of participation in research by those dental hygienists who attended the conference, special mention should be made of the extraordinary research productivity of Geneviève Tessier and Dianne Lachapelle, both of Quebec.

Research interest and activities are by no means restricted to those dental hygienists who attended the 1982 Winnipeg conference, but news of their activities is harder to obtain. In particular, graduates of the B.Sc.D. program of the University of Toronto have

high participation rates in graduate programs: three report having completed research-oriented masters programs, and a further three are enrolled in masters programs.

The Canadian Dental Hygienists' Association and the Quebec Dental Hygienists' Association both contributed generously to the funding of the Conference in 1982. The Canadian Dental Hygienists' Association has recently reinforced its commitment to the development of dental hygiene research through the establishment of a research training grant, to be awarded annually. ■

**Margery G.E. Forgay, Dip.D.H.,
B.Ed., M.A.**
*Director & Professor
School of Dental Hygiene,
Dalhousie University*

“THE ROLE OF THE DENTAL HYGIENIST, PAST, PRESENT AND FUTURE”

Regional
Development
Seminar
Charlottetown,
P.E.I.
April 25, 1987

*The following is an edited
summary of the panelists'
remarks.*

Mr. Campbell:

As this seminar is the first of its kind, I would like to highlight other hygiene firsts, attributed to P.E.I. The Department of Health was the first to employ dental hygienists in 1950 and these hygienists were the first to provide topical fluoride treatments in a public health setting. In 1968, hygienists in the Children's Dental Care Program began restorative services. This program has met with great success and this province is proud of the fine record in childrens' dental care that has been maintained.

The nature of dental health care in Canada is changing. The dental needs of the geriatric population are just beginning to be realized. Issues of behavioural motivation and practice settings are being addressed to provide service to our elderly. I am pleased to see C.D.H.A. take the initiative in bringing these issues to a public forum.

On behalf of the Minister, I wish you well in this seminar and in all future endeavours.

Moderator: Dr. John Stewart
Panelists: Dr. John Robertson, *President* - Canadian Dental Association
Prof. M.G.E. Forgay, *Director*, School of Dental Hygiene, Dalhousie University
Dr. R.G. Romcke, *Director*, Children's Dental Care Program (P.E.I.)
Prof. Ellen Brownstone, *Director*, School of Dental Hygiene, University of Manitoba
Opening: Charles Campbell, *Deputy Minister* - Health and
Remarks: Social Services (P.E.I.)

Due to the success of this public relations pilot project, C.D.H.A. plans to hold similar seminars in other regions of the country. The

Canadian Dental Hygienists' Association is committed to bringing issues of national concern into regional focus.

Dr. R.G. Romcke:

The role of the dental hygienist has been dictated by the dental needs of the population. When the first dental hygienist came to practice in P.E.I. in 1950, the average 5 year old had 7 caries and one restoration. At that time the importance of the dental hygienist as an educator was established. They convinced parents to help their children brush their teeth, promoted fluoridation and provided topical fluorides. By 1971, conditions had improved, and the Children's Dental Program began.

The need for an increase in man-

power resulted in the expanded duty hygienist. This continued until 1981 when the need for restorative services declined. At present, the hygienists play an active role in the sealant project study with the routine placement of pit and fissure sealants.

Factors influencing the future role of dental hygienists are numerous and difficult to predict. The universal approach to government funded dental programs will probably shift to a targeted approach. While fewer restorative services will be needed, preventive services will be in high demand. More and more people will want to keep their teeth which will

increase the demand for dental hygiene services. The increasing periodontal needs of an aging population will place a higher value on preventive services in periodontal therapy.

The role of the dental hygienist in the future looks bright as it appears there will be an overall increase in demand for services that dental hygienists provide.

Prof. Ellen Brownstone

C.D.H.A. is working hard to make the public; the consumer of dental care and allied health professions as well as the dental profession more aware of the activities of C.D.H.A. as a professional association and the developments of dental hygiene, in general. As the profession of dental hygiene continues to make contributions to the delivery of dental care to Canadians, it is believed that the future roles of dental hygienists will expand but continuing importance will be placed on the "dental hygiene practitioner".

In 1985 the C.D.H.A. presented a paper at the C.D.A. National Manpower Symposium. The symposium's program included discussion of changing dental needs and future dental health professional manpower requirements. C.D.H.A. made several statements with respect to some of the future roles of dental hygiene and delivery of dental care to the public:

1. One set of opportunities lies in delivering traditional services to non-traditional client groups: seniors; residents of hospitals, group or institutional homes; physically and mentally handicapped individuals; natives and those Canadians who live in remote communities. There are opportunities for dental and dental hygiene practitioners to serve these client groups - there

is no "oversupply" in these sectors. Dentists and dental hygienists must consider career options other than urban private practice.

2. Another set of opportunities lies in the development of new services - both for the traditional and non-traditional markets. As periodontal disease emerges as the primary dental health problem in our country, there will be an opportunity to develop and offer new types of educational and self-help programs to the public. With expertise in both health education and health promotion, dental hygienists can play an important role in collaborating with dentists to develop cost-effective educational and self-care programs.
3. As dental practitioners begin to adopt a marketing orientation to practice development, new roles for all members of the dental health team will emerge. Dental hygienists have the educational background and skills to become effective marketing agents for the practices with which they are affiliated.

C.D.H.A. and the dental hygiene profession recognize their responsibility in contributing to the current and future delivery of "quality" dental health care to the Canadian public. We have and will continue to take this task seriously.

Dr. John Robertson

I am very pleased to have the opportunity to participate in this workshop on the role of the dental hygienist, past present and future, because I sincerely believe that the interests of dental hygienists, dentists and the public they serve are very much interrelated. From my perspective, the dental hygienist

and the dentist are part of an integrated oral health care delivery team that has worked well together in the past, that is currently effectively meeting the needs of the public and that can look forward in future to continued team work in pursuing our collective goal of improving the oral health of all Canadians.

In the past, the dental profession realized the need for a dental auxiliary who could contribute to the oral health education of patients and work in the mouth, under dental supervision, on the cleaning and polishing of teeth. Today the dental hygienist in every province of Canada is recognized as capable of performing a core of functions. The question on everyone's mind is where things go from here - what does the future hold for dental hygiene and its relationship to dentistry?

Because the interests of dental hygiene and dentistry are inter-related, the question of what happens to dental hygiene in future depends to a large extent upon what happens to the dental profession. There have been many indications that there is a surplus of dental manpower and that because of the decline in dental caries, the need for dental manpower will not grow appreciably in future. At the same time, everyone recognizes that Canada's population is aging and that there will in fact be an increased need for periodontal care and other dental care associated with the needs of the older age group.

Although research discoveries may change the situation dramatically, the continuing increase in requirements for periodontal treatment and the increased emphasis upon prevention will ensure that there is no lack of future opportunity for

dental hygienists. Some individuals have expressed concern that dentists will need to carry out dental hygiene procedures themselves because of declining patient supply; I believe that the growth of needs in other areas of dentistry, coupled with enrollment reductions in the faculties of dentistry and the tapping of the great resource represented by people who do not currently visit the dentist will tend to balance things out in spite of predictions of gloom and doom.

I don't see independent practice for dental hygiene as a viable alternative in the future and I don't believe that dental hygienists, as a whole, are actively interested in this kind of option. I do see the Canadian Dental Association and dentists interested in furthering the ability of the dental health team to meet increased needs in the areas of prevention and periodontal disease considering some re-definition of supervision that would permit more flexibility for hygienists working in homes for the aged or other institutions providing chronic care. This is a tremendous area of growth and greater involvement of dental hygienists in these settings can only contribute to a greater number of referrals of patients to dentists.

In conclusion, while there is potential for dentistry and dental hygiene to disagree over concepts such as independent practice for hygienists, I am optimistic that the best interests of patient care will influence both hygienists and dentists to find new working arrangements to both provide more flexibility for hygienists working in institutional settings and maintain the supervisory links that bring the expertise in diagnosis, treatment planning and general health care of the dentist to bear upon the treatment of

every patient, at an appropriate stage in the process.

Prof. M.G.E. Forgay

I have been asked today to give a brief overview of the history of dental hygiene in Canada, to describe the federal government Working Group on the Practice of Dental Hygiene, and to discuss some of the major recommendations of the report of the Working Group.

History:

In Canada, the first province to legally recognize dental hygiene was Ontario, in 1947, but no dental hygienists registered until several years later. The impetus for the development of dental hygiene in Canada came from public health, and it started in Prince Edward Island. Nova Scotia, Saskatchewan, and other provinces followed suit. Saskatchewan was the first province to have a licensed dental hygienist working in private practice. By 1968, all provinces and territories in Canada had legislation governing the practice and licensure of dental hygienists. The development of dental hygiene in Canada has been paralleled in other areas of the world. There are now some 75,000 dental hygienists in more than 50 countries. While about half of practicing dental hygienists are in the United States, there are about 16,000 in Japan, and Canada ranks third, with over 6,000 dental hygienists.

Working Group on the Practice of Dental Hygiene:

The Working Group on the practice of Dental Hygiene is a committee established by the federal government Department of National Health and Welfare in 1981. It is composed of eight

dental hygienists and five dentists. These individuals represent all geographic regions of Canada, and both official languages. Their diverse backgrounds include private practice, community health, hospital practice, and dental and dental hygiene education.

The deliberations of the Working Group have extended over six years, and have covered many aspects of dental hygiene in Canada: history, education, manpower, regulation, an examination of dental hygiene practice and practice settings in Canada, and some consideration of factors which influence the development of dental hygiene in this country. The results of these deliberations are in the process of being translated and edited, and will be published as Part I of the Working Group Report. The executive summary of Part I was published in 1986.

The Executive Summary and Recommendations of Part I of the report have been published in the "Canadian Dental Hygienist", Volume 20(1) 1986 in a special issue which was distributed to all dental hygienists in Canada. The Executive Summary was published in the Canadian Dental Association Journal. Additional copies in both official languages are available through Health and Welfare Canada.

There are 65 recommendations emanating from Part I of the Working Group Report. Highlighted are what I consider to be some of the major recommendations.

Education and Human Resources

One recommendation of the Working Group is that dental hygiene education programs and human resource planning agencies work closely together to coordinate the numbers of

graduate dental hygienists with current and projected human resource requirements. If a reduction in graduating hygienists becomes necessary, programs should consider alternatives such as graduating alternate years and not closing.

Previous human resources predictions (1979 Lewis, and 1982 CDA) had forecast that by the mid 1980's, decreasing demand for dental services and large numbers of graduating classes in dental hygiene would have combined to glut the market for dental hygienists.

In fact, 1987 sees an unprecedented demand for dental hygienists in almost every region of Canada, and no indication that the demand will diminish in the near future.

The need for dental hygienists educated beyond the diploma level, and the desired skills for such dental hygienists were identified in western Canada in a study supported by a grant from the National Health Research and Development Program in 1983. A similar survey on a smaller scale has indicated demand and potential employment settings for baccalaureate level dental hygienists in the Atlantic region. The Working Group recommends the establishment of baccalaureate dental hygiene programs in those areas with identified interest and need, and the expansion of the two present baccalaureate dental hygiene programs.

Regulation:

The two recommendations that may produce the most debate relate to regulation of dental hygienists.

The first is that dental hygiene become self regulating. The second relates to the present requirement for direct supervision of dental hygienists by dentists.

Dental hygiene is almost unique in its status as a health profession in that it does not usually have self regulation. Only one province in Canada is self regulating; Quebec. In one other, Ontario, it will be self regulating in a short time.

Observers outside dentistry have frequently made comment about the inappropriateness of one occupational group regulating another – especially when the group is also the major employer of the second group. Some provincial governments are examining this issue. In Ontario, this has resulted in the decision that dental hygiene will be self regulating. In a short period of time, therefore, the majority of dental hygienists in Canada will be regulated by dental hygienists.

The requirement for direct supervision of dental hygienists by dentists – that is the necessity of having a dentist present at the work site – is of concern to many dental hygienists and others.

The Working Group has recommended the recognition that some of the functions of the dental hygienist do not require supervision, and that the level of supervision for those that do be specified as general (i.e. that the dentist is aware of the procedures to be undertaken but need not be present at the worksite).

Of the 65 recommendations in Part I, those regarding regulation and supervision are undoubtedly the ones which will engender the most discussion. I think it is important to recognize what they DO NOT imply as well as what they recommend.

They do not imply a wish of Canadian dental hygienists to fragment dental health services.

They do not imply a recommendation for independent practice by dental hygienists. In the years of the existence of the Working Group, we had not one submission or proposal

suggesting that independent practice is the wave of the future for dental hygienists in Canada. My own feeling is that for hygienists in Canada it is a non issue at this time. There should be a clear distinction made between independent dental hygiene practice and independent contracting by a dental hygienist.

Final Comments:

It is the firm belief of the members of the Working Group that the interest of the public, of dental hygienists and of dentists will be best served by continuing and effective collaboration between dentistry and dental hygiene, but that there should be some changes in the traditional relationships between the two groups.

The role that dental hygiene will play in the provision of dental health services in the future in Canada is by no means certain at this time. There are some signs, however, that I consider to be cause for optimism: greater emphasis on health promotion and prevention of disease as a preferred means to better health of Canadians; higher expectations of Canadians of all ages for improved dental health; obvious signs of maturation of dental hygiene as a profession, on a global scale, and certainly in Canada; strong professional organizations; increased variety of practice settings and roles for dental hygienists; growing participation in research, planning and evaluation activities; and the development of practice standard for the profession.

Dental hygiene has an impressive record in Canada – especially in view of its short history. We have every reason to be proud of our past, to recognize that at present we are very much in a transitional state, and to look forward with optimism to the future.

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MARKETING, PUBLIC RELATIONS AND THE C.D.H.A.

Audrey J. Newcombe, Dip.D.H.
C.D.H.A. Public Relations Officer



The purpose of this article is to define the role of marketing, the role of public relations and their application to the profession of dental hygiene. The Canadian Dental Hygienists' Association has set public relations as a priority for the Association. Any program in public relations requires careful planning. Support from the general membership is necessary to ensure success of any public relations campaign. This article provides the general membership with a brief overview of the direction of our campaign.

What is Marketing?

Marketing is a popular term that is not always clearly defined. It is often used interchangeably with the term public relations, however, these two terms are not synonymous. The central concept underlying marketing is exchange. In the business sector, this exchange is the selling of services to attain profit. As a non-profit organization, C.D.H.A. is not marketing to increase profit. Our goal in marketing is to exchange promotion for increased public awareness and increased membership in our Association.

There are several distinctly different styles of marketing. Aggressive marketing is the "hard-sell" technique generally used in industry. Minimal marketing is the other extreme where there is "no-sell" marketing. As a non-profit, third sector organization, we have not consciously performed any marketing functions but rather

assumed that demand would grow for our services simply because we offered a quality product - the Canadian Dental Hygienists' Association. Minimal marketing is no longer the appropriate style for our Association. Balanced marketing is the third style. Balanced marketing² is an effective blend of elements known as a marketing mix. This approach is the style that C.D.H.A. should take to promote consumer awareness, the product offered (dental hygiene services) and the need for these services.

By employing marketing principles, our Association can be more effective in achieving our objectives: 1) contributing toward the improvement of the health of the public and 2) cultivating, promoting and sustaining the art and science of dental hygiene.

What is Public Relations?

Public relations has been identified as the planned effort to influence and maintain favorable opinion through open communication. It has also been identified as image or profile building. C.D.H.A. and the practice of dental hygiene currently have low

profiles or lack of image. The marketing techniques we will use will hopefully develop a higher profile, and a positive image identifiable by the public. Public relations is not cut and dried but an instinctive interaction with other individuals, organizations, and/or corporations for a positive acceptance. In essence, we are all public relations officers for the practice of dental hygiene and our Association.

Applying Marketing and Public Relations to Dental Hygiene

After defining the terms and assessing our needs, marketing techniques are applied to identified target groups in order to achieve our goal of improved image resulting in a higher profile.

The following target groups have been identified for external (outside our organization) marketing:

- A. non-member hygienists
- B. other allied health care professionals
- C. government agencies
- D. the general public

The internal marketing campaign has three target groups:

- A. Board of Directors
- B. general membership
- C. constituency associations

The balanced marketing approach will include personal contact, printed information and the use of the media to publicize dental hygiene. With enough support and careful planning, the end result will be a National Dental Hygiene Awareness campaign.

Summary

Marketing and public relations are two different aspects of promotion. Successful promotion includes careful assessment of needs. Any plan developed for a marketing campaign requires commitment on behalf of the Association to ensure a measurable result. The benefits of utilizing sound marketing techniques will be a higher profile/positive image for both the profession of dental hygiene and the Canadian Dental Hygienists' Association.

(References supplied upon request)

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THE SUPERWOMAN SYNDROME

Dr. Leah Nomm

Bedford Nutrition & Stress
Management Services
Halifax, Nova Scotia

*The following is a copy of
Dr. Nomm's presentation
at the 1986 CDHA convention in
Halifax, Nova Scotia.*

In the 1950's and 60's our news media was full of information about hypertension, cholesterol and the Type A personality. People started limiting how many eggs they ate per week and all over the country Type A's were learning to slow down. In this decade, there has been an improvement in the incidence of heart disease - due to the public awareness concerning cigarette smoking, low fat diet and increased exercise.

Now, in the 1980's a new medical concern is upon us - it is called the "Superwoman Syndrome". In increasing numbers, women are showing up at their doctor's offices with chronic headaches that are not caused by brain tumours; stomach distress not caused by ulcers; neck and back pain not caused by car accidents, and

overwhelming fatigue not caused by life threatening illnesses. The common cause in each case is stress.

Some of the causes of this stress have to do with *practical considerations*. A woman may be working at a job requiring alternating shifts so that every few days she is sleeping at different times, eating her meals at odd hours, and waking up at varying times. Most people who have jobs like this report that their bodies have difficulty adjusting and that their sleep patterns are disturbed. Or perhaps a woman needs to get up at six a.m.; waken, feed and dress two pre-schoolers; take care of her own personal needs; eat breakfast and be on the 7:30 bus for a half-hour trip to the daycare center and then walk 8

blocks to her office. The whole procedure then must be repeated at 5:00 p.m. in reverse. Perhaps the stressed woman is one who is at home in the suburbs without a vehicle. Her days are spent doing household tasks perfectly, with small children as her only daytime company, and she feels bored and discontented. Or maybe she is the woman who works "on call" at a local department store for minimum wages. She can't plan her days ahead of time because the store may call and she'll need to go in for 3½ hours, and she can't, despite the low wages, afford to say "no".

Another important cause of stress has to do with *personal expectations*. Typically women who suffer from the Superwoman Syndrome have high



expectations of themselves. They see themselves as people who are conscientious and responsible, and indeed they are. The only difficulty is that they are *too* conscientious and *too* responsible for their own good. Often this syndrome starts out innocently enough – the woman endeavors to be a good student which then leads into being a good employee. With marriage, she adds the attributes of being a good wife and after having children she may also take on the role of being a good mother. Not all single women are exempt from this syndrome. A single woman may feel she needs to be a better employee than the married woman because everyone thinks she has “more time” or she feels she must get more involved in the community or perform more charitable works.

And where do we get all these personal expectations? Certainly some are learned in our families. We can all recall stock phrases that were considered gospel truths – such as “if it’s worth doing, it’s worth doing well”; if you can’t say something nice, don’t say anything at all; “work first, play later”, and so on. For each role we play – different rules apply:

- | | |
|----------------------------------|--|
| A good student should | – finish her assignments on time
– go regularly to classes
– study before exams |
| A good daughter should | – visit her parents on holidays
– remember her mother’s birthday
– invite everyone to her house at Christmas |
| A good wife should | – listen to her husband’s problems
– be romantic anytime
– be careful with the budget |
| A good mother should | – be interested in her son’s sports team
– be consistent with discipline
– be available all the time |
| A good friend should | – be loyal
– help out whenever necessary
– send birthday cards |

Certainly we need rules to live by, but for a woman suffering from the Superwoman Syndrome all the rules seem to apply equally.

Part of the difficulty is that the woman has picked up an increasing number of “shoulds, musts, ought to’s and have to’s” without stopping to evaluate the necessity or desirability of each.

So far we’ve discussed what might be considered the personal or internal causes of stress, but there are three (3) messages that our society gives that make women especially prone to the Superwoman Syndrome despite her attempts to be immune.

The first of these messages is – “you are not good enough as you are”. Recently I analyzed the front covers of the women’s magazines in my local drugstore. These were magazines displayed at eye level and I did not have to go searching for the following illustrations. One magazine had the headline; “Lose 10 Pounds in 4 Days”, another said: “Twenty Easy Exercises To Do Before Breakfast”, another “Get Rid of Love Handles In 30 Days”. Obviously our bodies are not good enough and we are even expected to reverse biological inevitabilities since one magazine promises us information on how to “stop

aging”. The magazines contain advice for every type of parenting situation as we are told how to “make your child feel more secure”, or “latch key kids – neglected or self-sufficient?” If we are married we can learn how to, “twenty-one ways to make love to your husband”, or “keep your marriage happy – give him more time to himself”. If we are not married apparently we should want to be, as the magazines ply us with advice on “Where to meet eligible men”, “How not to scare him off once you’ve found him”.

According to these headlines we should be thinner (there are absolutely no articles on how to be heavier), we should change our hairstyle, our make-up’s out of date, we’re wearing the wrong colours. If we are homemakers we should be looking for a career; if we are career women we need to know ways to enhance our home-life; if we have many children we are told about the benefits of birth control, and if we have no children we are urged to adopt. If we are stay-at-home mothers we need to worry that our children will become too dependent and treat us like slaves; and if we are working mothers we should be concerned that our children feel neglected and have no one to talk to, especially when they come in the door after school.

In contrast the magazines aimed mostly for the male market have headlines like, “How I enjoyed my African Safari”, “Jaguar versus B.M.W.”, “Fifteen ways to get the most out of your Leica Camera”. With the exception of body-building magazines, male readers are not extolled to improve themselves much. There were not, for instance, magazines suggesting to men that they could learn “five ways to make your wife ecstatically happy”, or “eye shadow or eyeliner, is it necessary?” Fathers are not made

to feel guilty by reading "Corporate Daddies - a menace to our Youth?" or "Which is the modern way to diaper - cloth or paper?"

If one of the ways that women develop the Superwomen Syndrome is to have excessively high expectations of themselves then surely they are aided and abetted by the media.

The second message that society gives us is, "you may be here but you don't count". Although women comprise 52% of the population of Canada, we are not yet equally represented at any government level. Despite our educational advances of the last 30 years, women continue to earn less than 2/3 of what our male counterparts earn. These facts translate into a lack of impact upon the decision makers who legislate the type of lives we will live. The concerns of working women with children who need adequate daycare for their children, and the concerns of women working at home who need income and pensions are relegated by government to a time when we will be able to "afford them". In the meantime we continue to afford militarism and an ever increasing network of super highways.

It is the lack of impact on her environment that prods the Superwoman to become an overly extended member of her local political party, peace movement, or ecology action center.

The third message that society gives women is that "women are their own worst enemies". We have been told that nobody likes to work for a woman boss, especially not another woman. The current controversies between the R.E.A.L. Women (a right-wing women's organization) and the Women's Movement (usually feminist oriented) are gleefully reported in a "see I told you so" manner by the press.

As we have seen, there are practical, personal and political reasons why many women run the risk of being caught up in the Superwoman Syndrome. Fortunately this is not an inevitable result of living in the latter part of the 20th century. There are things we can do about it.

On a practical level, women can evaluate their daily schedules and look for ways to reduce repetitious and non essential tasks. They can teach their children and partners to take a greater share in the running of the household. They can urge their employers to consider flex-time scheduling and they can seek out other families to share transportation and shopping chores.

On a personal level, women can look at their own lists of shoulds and musts and ask themselves the following questions:

1. Where did I get this rule?
2. Do I want to continue having this expectation for myself?
3. Is it possible to comply 100% to this should, or might it be better for me to expect myself to do this thing "most of the time" or even only "some of the time" instead of "all the time".

In this manner it may be possible to adequately lower expectations without seriously reducing competency.

Politically we can firstly all begin to turn a blind eye and a deaf ear to advertising and journalism that purport to tell us what our values should be. Instead we would be better off to listen to our intuition and to our internal wisdom just as our foremothers have done for centuries. Secondly we can exercise our franchise and vote in municipal, provincial and federal elections after evaluating where the candidates stand on issues that are important to us. We can

write letters to our politicians and take part in any other political activities that will enable us to cease being part of the silent majority.

Thirdly we can stop believing the nonsense that women cannot and do not support each other. All over this country from grocery boycotts to the Women for Peace there is ample evidence that women banded together are a powerful force for change. We can stop being competitive with one another; we can stop praising and admiring the woman who has over-extended herself; we can stop looking to Superwomen as role models; and instead we can initiate ways to draw on each other's strengths, support each other's vulnerabilities, and cooperate with each other to enhance our lives. ■

INFECTION CONTROL PRACTICES

OF A SELECTED GROUP OF ONTARIO DENTAL HYGIENISTS

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Abstract

The practice of adequate infection control is a necessary responsibility of the dental health team. The majority of hygienists questioned in this study relied upon unreliable infection control techniques. This article describes the methods employed, compares them to acceptable techniques, and discusses why pertinent recommendations should be implemented.



Introduction

The documented increase in incidence of such transmissible diseases as Hepatitis B, and Herpes simplex and their potential transmission within the dental environment, has raised the profession's awareness of the need to practice adequate infection control. The current dental literature is replete with authoritative articles on infection control. However, few of the reports are based upon an appreciation of the usual infection control procedures adopted by dentists and their staff. This article, which is based upon actual infection control techniques, will offer rational practical advice.

Method

In the spring of 1986, two groups of dental hygienists (representing urban and rural areas of Eastern Ontario) were asked to complete a survey on Infection Control Techniques while attending continuing education courses on Infection Control. (Figure 1) The results of the questionnaire were tabulated, compared with accepted methods, and specific recommendations made, based upon the responses of the hygienists.

Discussion

This report is *not* a comprehensive study of Ontario dental hygienists, but it does reflect the practices of hygienists who were attending seminars on infection control.

The answers represent subjective assessments by the hygienists, and were *not* verified by either clinical or laboratory investigations.

Experience with Infectious Diseases

(Questions 1, 2 and 3) (Figure 2)

The common cold and herpes simplex infections occur frequently and the experiences reported by the hygienists are not unusual. However, 18 (56%) of the hygienists reported that these diseases were contracted from their working environment, while 5 (16%) believed that they had

acquired other diseases (measles, influenza, eye infections, viral disease) via the dental office. These diseases are seldom associated with severe consequences but they may create unnecessary office disruptions due to altered work patterns and sick leave. If the hygienists' suppositions are correct, these findings demonstrate that the dental office environment is a focus for the transmission of relatively mild infectious diseases, and by extrapolation, of serious disease such as Hepatitis B.

Recommendation:

Appropriate infection control must be practiced in all offices because, no matter the type of dentistry, each office has an environment conducive to the potential transmission of both mild and serious infections.

Barrier Techniques

(Questions 4 and 5) (*Figure 2*)

Barrier techniques are only effective when they are in operation. Therefore, the significance of the answer to question 4 relates to the number of hygienists who always used such protection. Only 7 (21%) of respondents wore gloves on a routine basis. While this is a considerable improvement from a 1984 study of Canadian dentists and auxiliaries [1] which reported a 3% use of gloves, it does not comply with recommendations from authoritative sources [2] which advise the regular use of gloves for all intra-oral procedures.

The common cold is transmitted via infected nasal and oral exudates. The creation of oral aerosols from ultrasonic scaling is an unavoidable consequence of dental hygiene techniques, yet only 10 (31%) of hygienists always wore a mask to avoid contami-

nants from this source. Although 30 (94%) of the hygienists admitted to having experienced the common cold, the infection may have originated outside the dental office, thus a second reason for wearing a mask is to protect the patient from oral and respiratory tract infections harboured by the operator.

It appears that the most popular barrier technique was the wearing of eyeglasses. While 14 (44%) of the hygienists always used eyeglasses this may be a false figure from the infection control perspective as the question did not distinguish between prescription and protective eyeglasses.

Within the last two years there has been a plentiful supply of the Hepatitis B vaccine. A slight majority (56%) of the hygienists had completed the vaccination regimen, while two of the remainder were starting on the program. The vaccine is safe, effective, and not a medium for the transmission of the AIDS virus.

All patients have the potential to transmit infectious diseases to the dental operator and throughout the dental treatment area. It is not possible for the dental staff to identify all high risk patients. Therefore, there is no logic in adopting barrier techniques on an irregular or occasional basis. The recipient of the Hepatitis B vaccine, while immune to the disease is still capable of transmitting Hepatitis B virus via contaminated instruments, hands, and clothing.

Recommendations:

The wearing of gloves, masks and eyeglasses when performing intra-oral procedures on any patient, is a necessary aspect of effective infection control. To reduce aerosols, the use of high speed suction is encouraged while

performing ultrasonic scalings. All dental personnel should receive immunization against Hepatitis B.

Instrument Sterilization

(Questions 6 and 10) (*Figure 2*)

The responses to question 6 demonstrated that different methods were employed to sterilize handpieces and hand instruments. The majority, 19 (60%), of the hygienists cleansed the handpiece with an alcohol wipe, but 28 (87%) used an autoclave or similar device to sterilize hand instruments. All instruments or devices placed within or close to the oral cavity should be sterilized. The handpiece is one instrument which traditionally has not received such treatment. The alcohol and germicide wipes are ineffective in the dental environment and are not recommended [3]. It is important to stress that disinfection and sterilization are not synonymous terms. Sterilization implies that all forms of microbial life have been destroyed, whereas disinfection indicates that some but not all microbes have been killed or deactivated. Glutaraldehydes are the only chemicals which are recommended as being suitable sterilants [3], but instruments must be immersed for 7-10 hours. It is impractical for handpieces or other instruments to be out of commission for such a period. Indeed there is a limited application for chemical or "cold" sterilization in dentistry. Heat sterilization is the method of choice. The recommended sterilizers are: the autoclave (steam under pressure), the chemical vapour sterilizer (hot chemical vapour under pressure), and the dry heat oven. While each method has distinct advantages, the chemical vapour sterilizer may be the most useful for the general dental practice.

Sterilizers are precision instruments which must be handled and maintained according to manufacturers' instructions. It is necessary to test the effectiveness of the sterilizer as this may vary with continued use and fair wear and tear. While 29 (90%) of the hygienists had access to a heat sterilizer, only 13 (40%) were aware of the sterilizer being subjected to specific efficiency tests. Indeed only 3 (9%) indicated that spore testing, (which is recommended [3]) was the method for testing effectiveness.

All sterilizers must maintain a critical temperature for a critical period to destroy all life forms. Such criteria may not be obtained with defective or worn parts, and sterilization will not occur. Process indicators or "sterilization" tape are designed to change colour at a certain temperature. They visibly demonstrate that the package has been subjected to a temperature which has changed the colour of the tape, but do not indicate the period of exposure to a specific temperature, therefore they cannot be used as a marker for sterility. Biological monitors are the recommended [3] method of testing. *Bacillus stearothermophilus* is very resistant to destruction by autoclave or chemical vapour sterilization, while *Bacillus subtilis* is resistant to killing by the dry heat sterilizer. Kits containing these spores are available. The spores are placed in an area of the sterilizer which would be relatively inaccessible to vapour or heat, and the sterilization cycle completed. The spores are then transferred to a culture medium and incubated for 72 hours. A lack of growth indicates destruction of the spores and by extrapolation an effective sterilizer. This testing may be performed in the dental office, but, in any case, the instructions issued with the biological monitoring kits must be carefully followed.

Preparatory steps are necessary before sterilizing instruments. All visible blood, saliva, and debris should be scrubbed off under running water with the operator wearing thick protective rubber

gloves. The instruments are dried and ultrasonically cleaned in a closed container, after which they are packaged and placed in the sterilizer according to the manufacturers' instructions.

Figure 1

INFECTION CONTROL SURVEY

1. Have you ever contracted any of the following illnesses?
 Herpes simplex virus ☐ yes ☐ no
 Viral hepatitis ☐ yes ☐ no
 Tuberculosis ☐ yes ☐ no
 Minor respiratory
 Infection (common cold) ☐ yes ☐ no
2. If "yes" to any of the questions listed above, do you believe the illness was contracted from the dental working environment? ☐ yes ☐ no
3. Is there any other illness you believe you contracted from the dental office? ☐ yes ☐ no
 If "yes" what are the illnesses? _____
4. Do you...

	Yes always	Yes rarely	Yes seldom	No
Wear rubber gloves while treating patients?	☐	☐	☐	☐
Wear a face mask when treating patients?	☐	☐	☐	☐
Wear prescription or safety glasses when treating patients?	☐	☐	☐	☐
5. Have you received a hepatitis B vaccine? ☐ yes ☐ no
6. Please indicate the method of sterilizing each of the following items after each patient.
 - a) Handpiece? _____ method
 - b) Hand instruments? _____ method
7. Is your dental chair cleaned after each patient? ☐ yes ☐ no
 If yes describe method. _____
8. Is your bracket table cleaned after each patient? ☐ yes ☐ no
 If yes, describe method _____
9. Are your counterops cleaned after each patient? ☐ yes ☐ no
 If yes, describe method _____
10. Do you have an autoclave in your office? ☐ yes ☐ no
 If "yes" is it ever inspected or tested as to its effectiveness?
☐ yes ☐ no If "yes" describe method and frequency _____
11. Please comment on any other concerns which you may have regarding infection control in your working environment?

Heat sterilizable handpieces are now available. Therefore, the handpiece should no longer be the weak link in the infection control cycle of dental instruments. Non-sterilizable handpieces may be immersed in glutaraldehyde for at least 10 minutes, then rinsed in sterile water. This will produce a high degree of disinfection but not sterilization. It is not possible to assess the effectiveness of solutions used for sterilization or disinfection with biologic monitors which is another disadvantage of "cold sterilization" techniques.

Recommendations:

All instruments and devices used in and around the oral cavity should be sterilized. All such instruments which can be heat sterilized must be so sterilized. Heat sterilizers should be subjected to biological monitoring at least once per month. When unavoidable, the recommended disinfectants [3] may be utilized as limited alternatives to accepted sterilization techniques.

Office Cleanliness

(Questions 7, 8 and 9) (Figure 2)

The answers provided an assessment of the cleanliness of the working environment. The dental chair was cleaned between patients by 8 (25%) of the hygienists, the bracket table by 25 (78%), and the counter top by 15 (47%). In all instances the most popular method was the use of alcohol or germiphene wipes. As previously explained alcohol or quaternary ammonium compounds are not effective as disinfectants for dental infection control. Therefore the majority of hygienists were needlessly expending valuable energy and working time.

The aerosols produced during many dental procedures combined

Question 1

Among the following diseases: common cold, Herpes simplex, viral hepatitis, and tuberculosis - 30 hygienists had experience of a common cold, and 13 were aware of having a herpetic simplex type infection.

Question 2

18 hygienists believed that the common cold or herpes infection had been contracted from the dental office environment.

Question 3

5 hygienists believed that other diseases had been contracted from the dental office environment. Of these 2 had a viral (non-herpes) infection, 1 had measles, 1 had an eye infection, and 1 had an influenza type infection.

Question 4

Use of barrier techniques while treating patients was as follows:

Barrier Technique	Always	Usually	Seldom	Never
Wear rubber gloves	7	6	13	6
Wear a face mask	10	6	13	3
Wear eyeglasses	14	7	5	6

Question 5

18 hygienists had received the Hepatitis B vaccine.

Question 6

(a) The following methods were used to sterilize the dental handpiece:

Alcohol wipe	19
Germiphene wipe	6
Biocide immersions or wipe	3
Iodophore immersions or wipe	2
Alcohol and iodophore wipe	1
Autoclave	1

(b) The following methods were used to sterilize hand instruments:

Autoclave	28
"Cold" sterilization	1
Germiphene wipe	2
Alcohol wipe	1

with the staff touching light handles, drawer pulls, and equipment switches ensures that the entire working environment may be covered by potentially pathogenic microorganisms. Disposable covers are the most effective barrier to protect against such contamination. Disposable paper tray covers, used by 8 (25%)

of the hygienists, are suitable. Countertops and chairs may be covered by linen drapes or paper sheets, and handles wrapped in aluminum foil. Such procedures are effective but time consuming when performed between patients, therefore there is a role for chemicals as surface disinfectants.

Question 7

8 hygienists cleaned the dental chair after each appointment. The methods used were:

Alcohol wipe	3
Germiphene wipe	2
"Disinfectant" wipe	3

Question 8

25 hygienists cleaned the bracket table after each patient. The methods used were:

Alcohol wipe	12
Paper tray cover changed	8
Germiphene wipe	6
Biocide wipe	1
Alcohol and iodophore wipe	1

Question 9

15 hygienists cleaned the counter top after each patient. The methods used were:

Alcohol wipe	6
Germiphene wipe	6
Alcohol and iodophore wipe	1
Bleach wipe	1
Water wipe	1

Question 10

- (a) 29 of the hygienists were aware of an autoclave being in the office.
(b) 13 of the hygienists were aware of a testing program to assess the effectiveness of the autoclave.
(c) 3 hygienists were aware of a spore strip being used to test the effectiveness of the autoclave, while 4 hygienists were aware of sterilizing tape being used.

Question 11

Among hygienists infection control concerns were:

- use of carpets on office floor
- cleansing of waiting room toys
- cleansing of charts, pens, pencils
- sterilization of plastic items, and instruments with plastic handles
- toxicity of glutaraldehydes
- sterilization of cavitron tips and prophylaxis angles

surface iodophor disinfectants are used at the dilution recommended by the manufacturer. They are inexpensive and less toxic than bleach. The diluted iodophor solution has a short shelf life so excessive volumes should not be prepared at any one time. The iodophors may discolour cracked counter tops or vinyl chair coverings, however the stains may be removed by bleach, alcohol, or water.

Surface disinfection is accomplished in two stages. A cloth or sponge soaked in the solution is used to wipe down the surface and to remove or deactivate any organic debris (saliva, blood, mucous, etc.). The surface is then wiped with a second saturated cloth allowing a thin film of the disinfectant to remain on the surface for as long as possible.

Recommendation:

Surface disinfection should be performed between patients. The most effective method is by the use of disposable covers, however, properly prepared solutions of sodium hypochlorite or iodophors are acceptable if applied correctly.

Concerns:

The concerns raised by the hygienists were varied.

i) Carpet

Carpet should be avoided in the treatment area, if used elsewhere it must be capable of withstanding washing and disinfection.

ii) Toys

It is impractical to sterilize or disinfect each toy after it has been handled by a child. Toys are a potential source of cross contamination, and from an infection control perspective, should not be present.

iii) Charts

Charts, pens, pencils should not be handled by persons

Sodium hypochlorite (bleach) and the iodophor compounds are recommended surface disinfectants. Bleach is a reliable disinfectant, however it is damaging to metal and clothing, irritating to the eyes and skin, and has a strong odour which may be offensive to staff and patients. Sodium hypochlorite or bleach is usually

purchased as a 5.25% solution of free chlorine. A quarter of a cup of this solution diluted with a gallon of tap water is suitable for surface disinfection, and should be prepared on a daily basis. The iodophor compounds contain iodine and a solubilizing agent or carrier. They are effective surface disinfectants provided only hard

wearing contaminated gloves or with unwashed hands. These objects should be protected from splatter by blood, aerosols, or debris.

iv) Plastic Items

Some plastics such as nylon, polymethylpentene and polypropylene may be heat sterilized but if in doubt the manufacturer should be questioned. Glutaraldehyde sterilization may be used but this requires 7-10 hours of exposure at room temperature.

v) Glutaraldehydes

These are toxic chemicals and should be handled with care. They are not known to affect pregnancy but they should be used in a well ventilated environment.

vi) Cavitron Tips

Cavitron tips and prophylaxis angles may be sterilized by the chemical vapour or autoclave techniques.

Recommendation:

Comprehensive and continuing education in current infection control practices should be made available to dental hygienists.

Summary

The hygienists responding to the questionnaire represent approximately 2% of the hygienists practicing in Ontario. In addition, the participating hygienists were *not* selected on a random basis but were members of a group with an expressed interest in infection control. Therefore, the study is *not* statistically valid, nor can the results be considered representative of hygiene practices throughout Ontario and Canada. This would require a more extensive and detailed analysis. Nevertheless, the uniformity of certain results does suggest that the responding hygienists do not make effective use of barrier techniques, and rely, almost exclusively, on alcohol as a disinfectant.

The recommendations, which are based upon accepted techniques, will allow hygienists and dentists to practice in an environment which is safe for their health and that of their families and patients. ■

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SELF ASSESSMENT TEST PERIODONTOLOGY

1

A 23 year old woman in her second trimester of pregnancy presents with gingival bleeding and generalized papillary edema. Her present gingival condition is:

- A initiated by hormonal changes, aggravated by local irritants
- B unrelated to pregnancy and necessitates immediate root planing and curettage
- C aggravated by hormonal changes but initiated by local irritants
- D unrelated to pregnancy and necessitates improved home care
- E unrelated to pregnancy, caused only by local irritants

2

Persons with periodontal disease can maintain oral hygiene effectively to pocket depths of:

- A 1-2 mm
- B 2-3 mm
- C 4-5 mm
- D 3-4 mm

3

Sharpey's fibers insert into:

- A bundle bone
- B supporting alveolar bone
- C radicular bone
- D cortical plates
- E interradicular bone

4

The most common arrangement at the cemento-enamel junction is:

- A cementum and enamel failing to meet, leaving dentin exposed
- B enamel overlapping cementum
- C enamel and cementum meeting in a butt joint
- D cementum overlapping enamel
- E cementum forming a cuff overlapping enamel

5

A rare chronic disease involving papillary, marginal and attached gingiva in which the epithelium is easily peeled exposing raw connective tissue is:

- A desquamative gingivitis
- B periodontosis
- C acute necrotizing ulcerative gingivitis
- D primary herpetic gingivostomatitis
- E hereditary gingival fibromatosis

6

A useful oral physiotherapy aid to clean both concave interproximal tooth surfaces and open furcations is:

- A dental floss
- B a soft bristled medium size toothbrush
- C a round toothpick in a Perio-Aid holder
- D an oral water irrigating device
- E dental tape

7

The difference in colour between supragingival calculus and subgingival calculus is related to:

- A pH of the saliva
- B death of leukocytes
- C pigmentation of the gingiva
- D drying effect of the air
- E hemolysis of erythrocytes

8

The cytoplasm of neutrophilic granulocytes contain _____ which are involved in the process of intracellular digestion of microorganisms.

- A lysosomes
- B opsonins
- C antibodies
- D kinens
- E amines

9

Widening of the periodontal ligament space can be interpreted radiographically as a sign of:

- A gingivitis
- B bone loss
- C loss of connective tissue
- D traumatic occlusion
- E periodontosis

10

In advanced periodontal disease with pathologically deepened pockets the flora of subgingival plaque is dominated by:

- A aerobic microorganisms
- B anaerobic microorganisms
- C gram negative cocci and rods
- D gram positive cocci and rods
- E gram negative cocci

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- Margaret M. Pyett, C.D.A., S.D.T., R.D.H. Instructor, Dental Hygiene Program Wascana Institute of Applied Arts & Sciences Regina, Saskatchewan

4. D	1. C
3. A	2. D
10. B	9. D
7. E	6. C
5. A	8. A

Answers: To Self Assessment Test

**Moss-Salentijn,
Hendricks-Klyvert,
*Dental and Oral
Tissues, An
Introduction*, 2nd edn.,
Lea & Febiger, 1985, 323 pgs.,
\$32.50.**

The authors of this study manual are associate professors at the School of Dental and Oral Surgery of Columbia University. Ms. Moss-Salentijn has acquired a Ph.D. in dentistry while Ms. Hendricks-Klyvert, beginning as a registered dental hygienist has gone on to a doctorate in education. This second edition of the text, published in 1985, was printed five years after the 1st edition in attempts to reflect the increasing information available. Much of the reference material listed at the end of every chapter represents information published after their 1980 printing.

In their second edition, as well as the first, the authors have strived to provide dental hygiene students with an introduction to orofacial histology and embryology, meant to be supplemented by classroom instruction and when possible, laboratory exercises. This text was written in order to address two problems confronting those preparing to become members of the dental profession. The first problem is attempting to assimilate large amounts of basic information in a relatively short amount of time. The authors believe that many students may be missing critical information as they lose themselves in memorizing nomenclature. Likewise, this memorization does not add to their understanding of the concepts. Therefore, the authors have attempted to write in "plain language" and to avoid whenever possible the introduction of unnecessary terms. The second

problem facing the dental student is bridging the gap between the basic sciences and the ultimate relevancy to the clinician. Keeping in mind the duties of the future dental professional, the authors have put more emphasis of the text's material on topics requiring detailed knowledge from a clinical standpoint. Furthermore, in each clearly presented chapter, the authors promptly address the practical application of the text's morphological information when applicable.

The text is subdivided into two main sections; Part I – basic tissues in the orofacial region and, Part II – dental and periodontal tissues. Each section is further subdivided into chapters regarding the individual tissues. As a study manual, these clearly defined chapters support the text's purpose. It is a true study aid providing many opportunities for review. During the introduction of each chapter, clinical importance or applications are discussed which may help to give the student perspective before delving into the respective chapter topics. New terms are italicized for easier recognition. Seemingly conflicting or misleading information is reviewed when necessary to prevent confusion. Likewise, pertinent discussions of differences and similarities of comparable tissues (eg. enamel and dentin) also provide good review. Numerous diagrams, histological photographs, electron microscopy and even three dimensional computer graphics are appropriately placed and aid in visualization of unfamiliar concepts. At times illustrations and photos of histological studies are placed side by side for further clarification.

The author's statement; "an understanding of the structure of this tissue leads to an understanding of it's function..."*, appears to be

an overriding theme in each chapter. The chapter conclusion helps to tie in what has been presented with further branches of discussion in subsequent chapters. If this text as an introduction whets the appetite of the reader for more research, the authors refer the student to the reading list at the end of every chapter. Accordingly, the authors have limited the scope of the text to that which is pertinent to the student in the dental field as well as that which is clinically relevant.

The material presented is, in my estimation, appropriate for the stated target group. I have found the text and diagrams highly descriptive yet not overly complicated with extra terminology. For example, when describing mitosis, the authors explain in continuous action what happens during this type of cell division without complicating matters by stating what each stage is termed. Only with the adjoining diagrams are the steps labelled. Because this text is meant as an introduction to the dental tissues, it is basically descriptive in format. Therefore, discussion of varying views is rarely an issue, but when particular information is still under study, the authors do disclose this as well. The authors are to be congratulated for a clearly written, comprehensive resource text for hygiene students in their introductory study of histology and embryology.

*pg. 60 *Dental and Oral Tissues – An Introduction*, Letty Moss-Salentijn, Marlene Hendricks-Klyvert. Lea & Febiger. 1985

*Reviewed by Monica DeWit, RDH
Edmonton, Alberta*

Dental Care Programs in Canada: Historical Development, Current Status and Future Directions.

Department of National Health and Welfare, Canada, \$9.95, p. 165

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Limitations in available data present barriers for analysis of attained goals and objectives within programs and comparison of one program to another, especially in terms of utilization and cost effectiveness.

Considerations for future policy direction stress the need for longitudinal data to enable program analysis. This report has the potential to stimulate further research in dental program planning, delivery, utilization and evaluation.

"Dental Care Programs in Canada" presents a comprehensive analysis of existing dental care programs in Canada to 1984. It is recommended for dental hygiene educators, public health dental professionals and dental researchers.

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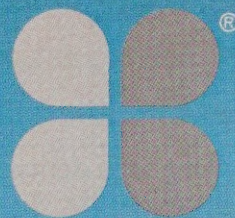
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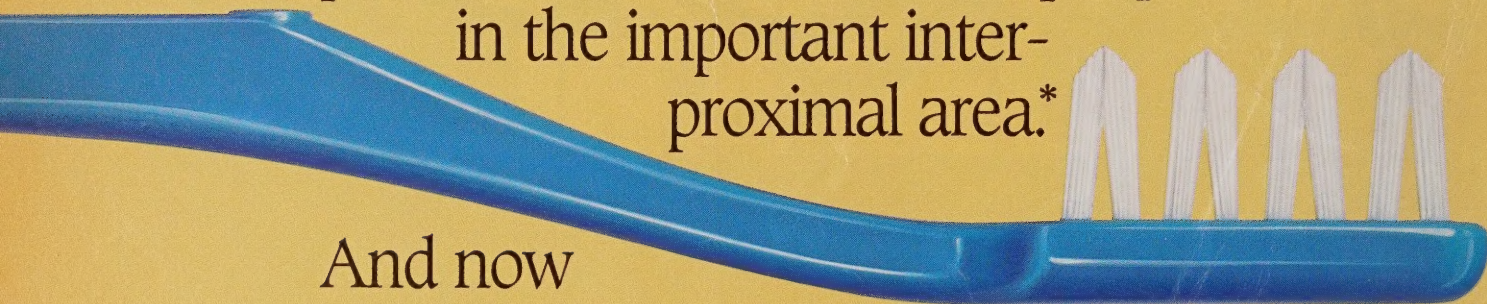
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* "Evaluating cleaning efficiency of different toothbrush designs and textures". Sam L. Yankell et al., University of Pennsylvania, J. Soc. Cosmet. Chem. (May/June, 1983)

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PRESIDENTS MESSAGE

Serving CDHA as President was a growing experience – worth the commitment of time and energy demanded every day! I am very proud of the work being carried out all across Canada by dedicated hygienists. As an emerging profession, much is expected of Dental Hygiene. As demand for our role in the promotion and delivery of dental health care increases, each of us is charged with the responsibility to participate – to serve the public better by actively participating in our profession!

This past year, hygienists welcomed the Ontario Government's announcement of a new College of Dental Hygiene. Across Canada, all hygienists desire a representative voice in the regulation of dental hygiene practice. In keeping with the principles that a profession is responsible for the regulation of its members and it is inappropriate for one profession to control another; hygienists will continue to seek proportionate representation on various provincial regulating authorities.

Dental hygiene, at the national level plays an active role in professional resource planning. Besides having an official appointment on the Canadian Dental Association's Professional Resource Utilization Committee, CDHA has conducted a Census Survey in collaboration with Mrs. Patricia Johnson, doctoral candidate, University of Toronto. The survey will provide valuable data for use in predicting future requirements for dental hygienists and expand on the data bank established through the now discontinued Statistics Canada Surveys.

CDHA has also requested provincial licensing bodies to collect and tabulate demographic data on a regular basis and make them available on request for planning purposes.

CDHA is seeking a more active voice in the Accreditation of Dental Hygiene Educational Programs. We have asked for more proportionate representation on the CDA Council on Education and Accreditation which surveys, reviews and determines status of dental hygiene programs (CDHA presently has only one vote). In support of accreditation, CDHA has also considered giving recognition to accredited status in our proposed certification process. Once in place, National Certification should enhance the importance of full accredited status to all educational programs. Accordingly, unaccredited, foreign or re-licensure candidates will be obliged to take a national comprehensive examination.

CDHA has taken an active role in health promotion. In 1986, "Smile for Life" a Dental Health Guide for the Older Adult was developed and distributed by a group directed by Joanne Clovis, Chairman Community Dental Health and funded by a grant from National Health and Welfare.

The CDA Dental Health Guide for Health Care Workers in Chronic Care Institutions was written by CDHA appointee, Yvonne Knazan, is expected to be available through CDA Council on Health Care and Hospital Services. Two hygienists represent CDHA on a committee of the Federal Government which is looking into the role dental health professionals in health promotion. CDHA anticipates a greater role for hygienists in health promotion. Our response to the Epp Report: Achieving Health for All, outlines our present activities and projects the future role of dental hygiene in contributing to the overall health of the public.

Further efforts have focused on promoting education and research in dental hygiene. Accordingly,

CDHA has asked schools to ensure that priority is placed on the educational preparation of hygienists to conduct research. We have requested also that the criteria for entrance into the Diploma in Public Health Program at University of Toronto be reviewed with a view to admitting hygienists. We are in favour of the establishment of a Masters Program in Dental Hygiene in a Canadian University and additional Degree Programs. Investigations regarding a national certification process for Dental Hygiene similar to the one now in place for dentists have resulted in a decision to develop a table of specifications for a Canadian examination. The table, if approved by the Provincial licensing authorities would become the basis for a didactic and clinical evaluation instrument authorities, which could provide an alternate route to licensure for unaccredited foreign or re-licensure candidates. Besides a comprehensive assessment of theory, the exam shall include a mastery based evaluation of clinical skills.

CDHA has promoted the basic level of the CDA competency profile (once adopted) as the entry-level standard for basic licensure. We hope to see the basic standard adopted in all provinces and thereby facilitate portability of credentials without examination.

CDHA advocates for all dental hygienists. CDHA works for you! The Board of Directors and Executive Council needs your support. Please play an active role in the future of Dental Hygiene – offer your support through membership and service in CDHA! ■

Dianne Gallagher
Past President

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References: **1.** LAMSTER, I., et al.: Clin. Prev. Dent., 6:12 (1983). **2.** MENAKER, L. et al.: Ala. J. Med. Sci., 16:71 (1979). **3.** ROSS, N.M., et al.: Warner-Lambert research report #955-0875 (1976). **4.** YANKELL, S.L., et al.: Warner-Lambert research report #955-0893 (1976).

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LISTERINE
**AN EFFECTIVE TOOL AGAINST
PLAQUE AND GINGIVITIS.**



The Art and Science of Dental Hygiene

During the 1987 Annual Meeting of the Canadian Dental Hygienists' Association, the Board of Directors voted unanimously to adopt a mission statement that would direct all official activities of C.D.H.A.

"The mission of the C.D.H.A. is to maintain the honour and interests of the Dental Hygiene profession, to cultivate, promote and sustain the art and science of Dental Hygiene, and to contribute toward the improvement of the health of the public."

While most hygienists would agree with the substance of this statement, many could be confused by the apparent contradiction of the terms art and science. The terms are not mutually exclusive. Without art, the science of practice cannot be implemented. Some practitioners see an inherent contradiction in conceiving dental hygiene practice as both art and science, but *practice* emerges when both art and science are combined.

Science

The Report of the Working Group on the Practice of Dental Hygiene "identified dental hygiene as an occupation undergoing profes-

sionalism. At the present time, dental hygiene could be classified as an intermediate-level profession."¹ Not having reached true professionalism is analogous to being a young adult, when increased decision making and identity formation occurs.²

Hygienists are striving to be accepted as professionals with their own body of knowledge uniquely different from the parent profession, dentistry.^{3,4,7} In order to develop a knowledge base, hygienists need to engage in research which will generate knowledge, expand ideas, and solve practice problems.⁴ Since most hygienists in Canada and the United States are educated at the certificate/diploma level^{5,6,7}, educators have been calling for increased university graduate programs where there could be increased curricular emphasis on the acquisition of basic or foundational knowledge.⁵ The Working

Even After Brushing
With Fluoride,
Teeth Need
The Fluoride
In Listermint.

Here's Clinical
Evidence.



Group advocated that a master's level program in dental hygiene be established to prepare dental hygienists for increased responsibilities in education, community health, administration and research.¹ Educational institutions were encouraged to emphasize the preparation of dental hygiene researchers.¹

Michelle Darby challenges hygienists to share in the responsibility for advancing the theoretical body of dental hygiene knowledge by becoming actively involved in scientific research. She stresses that all practitioners have the ability to construct theory but these theories need documentation and validation.⁸ Questions relating to education, practice and treatment modality have all come under review in the educational institutions. Research using the scientific methods, has been proposed to implement change.⁹ Many hygienists are convinced that our future lies primarily

in the formation of a unique body of knowledge and that hygienists, both formally and informally should be placing their energies in that direction. While this position is a critical component, it is not the only approach to our future!

Art

Dental hygiene has achieved international recognition. Essentially the basics are practiced in the same manner in all countries, recognizing dental hygiene as a partner with dentistry. As with all aspects of life, dental hygiene takes on distinctive cultural characteristics of the host area. At international meetings we have the opportunity to experience how these cultural influences affect the practice of dental hygiene. International symposiums are invaluable. As allied health care personnel we make decisions regarding hygiene intervention^{10,11} for the patients who seek our care. How do we decide? Which skill do

we employ? Which oral health concepts do we assist our patients in learning? What style of communication is appropriate? When does the patient need to return for reassessment? All of these questions are part of the *art* of dental hygiene. Basic science can tell us what to do but not *how* to do it. Artistry is not only in the deciding but also in the doing.¹²

Artistry could be defined as a feeling or intuitive knowing based on underlying developed knowledge. How often does the hygienist intuitively 'know' that deposits are present based on the slight change in appearance of the gingiva? How often is a pocket, in an unusual place, discovered because the hygienist 'knows' to probe in the suspicious area? These are two examples of professional engagement in a performance that involves reflection in-action,¹² or intuitively knowing something and how to

"My patients get plenty of fluoride from brushing and other sources. Why on earth would I recommend a fluoride rinse?" We understand your doubts. But the accumulation of evidence from independent clinical studies* has become so persuasive, we believe it will overcome your skepticism.

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YOU AND LISTERMINT WITH FLUORIDE.

We do not suggest that you recommend Listermint with Fluoride as a substitute for other sources of fluoride. But because most adults use a mouthrinse, and are susceptible to cavities, doesn't it make sense that they use a mouthrinse that gives their teeth extra protection?

We welcome your comments and inquiries.*

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**neutral pH, 0.22 mg/mL of sodium fluoride (100 ppm fluoride ion) 1. Torell, P.; Ericsson, Y.: Int'l workshop on fl/dental caries red. (1974). 2. Ripa, L.W. JADA 102:477-481 (1981). 3. Birkeland, J.M.; Torell, P. Caries Res. 12 (Suppl 1), 38-51 (1978). 4. Driscoll, W.S.; Swango, P.A.; Horowitz, A.M.; Kingman, A. JADA 105:1010-1013 (1982). 5. Koulourides, T. Data on file Warner-Lambert Canada Inc. 1985.

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solve the problem (or at least where to seek the answers).

Learning the art of hygiene is a very individual process. The curriculum is designed to teach the skills and science central to dental hygiene practice, but the artistry comes from the interaction between students and faculty. The value of faculty simultaneously engaged in practice outside the school has been documented in accreditation guidelines. Students with different backgrounds contribute concepts and techniques that merge with traditionally held values, which in turn encourages hygienists to seek alternative practice modes. Artistry continues to be learned and developed throughout life. It is artistry that is the flair of dental hygiene – the subtle difference between a good practitioner and a great practitioner. Artistry is difficult to measure; it is a feeling; it is being in touch with our patients' needs; it is being in touch with who the dental hygienist is!

Practice

Practice is what emerges when the two seemingly opposite concepts of art and science are combined. Science alone cannot sustain dental hygiene. Sound scientific principles need to be complimented by knowing when and how to use research findings to better the oral health of the individual. Practice *is* the art and science of dental hygiene.

So much emphasis has been placed on scientific research and the search for knowledge, that the essence of hygiene practice, the communication with our patients seems to be forgotten. *How well* we do it, may be just as critical as *why* we do it.

C.D.H.A. is committed to sustaining *the art and science* of dental hygiene. The two parts make the whole, one cannot stand alone. Art and science are not mutually exclusive, they are opposing forces

that combine to form what we so proudly call the practice of dental hygiene. ■

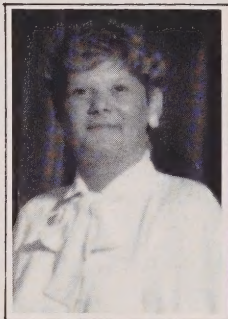
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Fran Cotton
Editor

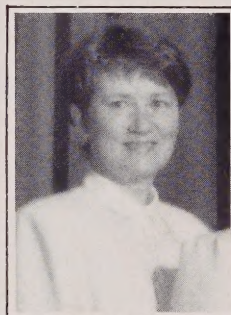
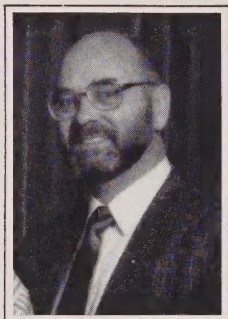
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President



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First-Vice-President



Dianne Gallagher,
Past-President



Signe Arason,
Secretary

Executive Council Travel

Dianne Gallagher and Ellen Brownstone attended the American Dental Hygienists' Association Annual Session in St. Louis, Missouri from June 22 to June 24, 1987. Included in their activities at this meeting was observation of the House of Delegates in Session, attendance at the installation of the 1987/88 A.D.H.A. Officers, and a meeting with several A.D.H.A. Executive members.

Dianne Gallagher addressed the House of Delegates on June 23, providing them with some highlights of C.D.H.A.'s activities during 1986/87, acknowledging the establishment of a C.D.H.A./A.D.H.A. Liaison Committee and promoting the 1989 International Dental Hygiene Symposium in Ottawa. The 1988 A.D.H.A. Annual Session will take place June 1 to June 8 in Seattle, Washington.



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*Irene Woodall RDH, PhD our Keynote Speaker who will be speaking on: *"Revitalizing your Dental Hygiene Career"* Dr Woodall has practiced and taught Dental Hygiene as well as acting as director for dental hygiene programs. She has authored two texts: *Comprehensive Dental Hygiene Care and Legal, Ethical and Management Aspects of the Dental Care System* and is known for her stimulating editorials in RDH Magazine.

*Naomi Rhodes, R.D.H. brings her ability to motivate and inspire from 20 years of hands-on

experience as a hygienist and practice consultant. She will be addressing communication and staff development issues.

*Capsule Clinics including such topics as: TMJ/Aesthetics/Dentistry and the Law/Lower Back Pain/Infection Control

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*Your classmates at a Reunion Nite
*Bar-B-Que and Social Evening Extraordinaire at Ft. Edmonton

All this and more!

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Edmonton, Alberta August 21-24.

In the fall of 1986, a random sample of 720 Canadian dental hygienists was surveyed to establish the content validity of clinical practice standards being developed as a special project of the Working Group on the Practice of Dental Hygiene, sponsored by Health and Welfare Canada.

The content validation questionnaire required significant input from respondents (108 standards to evaluate and make comments about) and the response from dental hygienists was excellent. A seventy-two percent response rate was achieved – outstanding for a complex, time consuming written questionnaire. Through their response, Canadian dental hygienists demonstrated a high degree of professional responsibility and commitment.

The Advisory Committee on the Development of Clinical Practice Standards for Dental Hygienists is

now making final revisions to the standards and Health and Welfare Canada plans to publish the standards in English and French in the spring of 1988 and make them available to Canadian dental hygienists.

Objet : Établissement des normes de pratique de l'hygiène dentaire au Canada

Au cours de l'automne 1986, une enquête a été effectuée auprès d'un échantillon aléatoire composé de 720 hygiénistes dentaires canadiens. L'enquête avait pour objet de valider le contenu des normes de la pratique clinique des hygiénistes dentaires. Cette enquête était un projet spécial du Groupe de travail sur la pratique de l'hygiène dentaire, parainné par Santé et Bien-être social, Canada.

Le questionnaire élaboré pour valider le contenu des normes comprenait 108 normes et exigeait des répondants un apport substantiel en temps, en réflexion et en commentaires. Malgré cela, 72% des hygiénistes dentaires faisant partie de l'échantillon ont répondu adéquatement, faisant preuve d'un haut niveau d'engagement et de responsabilité professionnels.

A la lumière des réponses et des commentaires des répondants, le Comité consultatif, responsable de l'élaboration des normes de la pratique de l'hygiène dentaire, révisé actuellement les normes. Santé et Bien-être social, Canada planifie la publication des normes en anglais et en français pour le printemps 1988 et les rendra disponibles aux hygiénistes dentaires canadiens.

DENTAL GUIDE FOR OLDER ADULTS



ORDER FORM

Smile... for Life

To receive **Smile...for Life**, complete this form and mail to: CDHA ACHD, 1320 Carling Avenue, Ottawa, Ontario K1Z 7K9.

This dental guide for older adults contains valuable information that can improve dental health and instill good dental habits. It has been prepared by the Canadian Dental Hygienists' Association, and with the assistance of the Health Promotion Contribution Program, Health and Welfare Canada.

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ORGANIZATION _____

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CITY _____

PROVINCE _____

POSTAL CODE _____

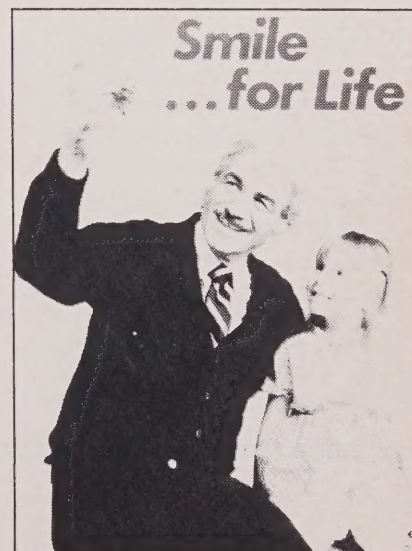
NUMBER OF COPIES REQUIRED.

If more than 25 copies are required, please attach a letter describing the intended use.

Are you a caregiver to older adults; for example, a professional or volunteer medical/dental practitioner, or responsible for the personal care of a family member? ☐ Yes ☐ No

Complete this order form and mail to:

The Canadian Dental Hygienists' Association 1320 Carling Avenue
L'association Canadienne des Hygiénistes Dentaires Ottawa, Ontario K1Z 7K9



■

The College of New Caledonia in Prince George, British Columbia, has recently been awarded approval and funding for a new Dental Hygiene Program, to admit its first class in the Fall, 1987. Patricia Ann Noble, R.D.H., B.S., M.Ed., recently of Atlanta, Georgia has been appointed Head of Dental Programs.

The College of New Caledonia
3330-22nd Avenue
Prince George, B.C.
V2N 1P8

■



Jo Gardner has been named Membership Data Researcher

Jo's responsibilities will include working in conjunction with Central Office to increase membership data efficiency, thereby, ensuring accurate and up-to-date member contact.



1989 marks the 25th Anniversary of C.D.H.A. and we are planning a Silver Anniversary Issue of the Canadian Dental Hygienists' Association Journal: Probe. Please check your scrapbooks and talk to your friends. Photos and anecdotes gratefully accepted! Please send to Central Office and mark 25th Anniversary.

Capitation

Ellen Williams
President-Elect

The C.D.H.A. executive is aware that some members are unfamiliar with capitation. It has come to be a very emotional issue and it is not the intention of this article to become involved in these emotions but rather to familiarize our members with some of the terminology used when discussing capitation plans.

What is capitation?

It is a mechanism for prepaid dental care.

Who is promoting it?

The capitation concept is being strongly promoted by insurance agencies. It is being promoted to large unions as a less costly benefit package than the traditional dental insurance now offered by these groups.

How does it work?

Dentistry is traditionally a fee for service arrangement. The service performed dictates the fee charged.

Capitation services are given and a general fee is paid. A dentist would be given a certain amount of money to provide dental care for a specific group of people. Insurance companies collect money from groups, hire a dentist for a sum of money then the people who have joined the capitation plan are steered to this dentist for all their dental needs. The patient has to have dental work done in a particular office and the dentist is under contract to provide dental care for all members of the group who have signed with the insuring company.

Effects for the dentist.

Gains:

- 1) Mechanism for new patients to come into office.
- 2) Paperwork for insurance premiums non existant for these patients.
- 3) Provides a guaranteed income.

Losses

- 1) Control of choice and number of patients.

- 2) Treatment provided may be dictated by financial reimbursement.

Effects for the patient.

Gains:

- 1) Ideally unlimited dental care.
- 2) No paperwork to submit to insurance company.

Losses:

- 1) Choice of dentist.
- 2) Treatment choices. Treatment is done according to monies provided.
- 3) Possibly the loss of quality care.

Effects for the hygienist

At this point in time it is very difficult to assess the effect that this type of plan will have on the work that hygienists do. Ideally all patients would be at maximum dental health and therefore more emphasis would be placed on prevention. At this point in time however there is no hard statistical evidence to support this assumption.

■

HIGHLIGHTS OF THE C.D.H.A. BOARD OF DIRECTORS MEETING

*Ottawa,
June 4-7,
1987*

Thursday June 4, P.M.

- Presidents' Reception,
Doral House

Friday June 5

- Pre-Board Workshop, Doral House

1. Sharon Amer (Health & Welfare Canada) presented the Epp Report - 'Achieving Health for All' (enclosed, response p 00). Quantities of the report are available from Sharon.
2. Audrey Newcombe presented the concepts of Health Promotion and the plan for increasing C.D.H.A.'s public relations image both internally and externally. Starting in October 1988, C.D.H.A., in conjunction with the American Dental Hygienists' Association, will sponsor a National Dental Hygiene Week.
3. Priorities for the 1987-88 year will be:
 - A. National Survey
 - B. Marketing and Public Relations
 - C. National Certification
 - D. Member Services



C.D.H.A. Directors relaxing on the terrace of The Doral Inn

4. Marg Walsh (Director from Ontario) presented the facts leading up to the March 12 announcement that Ontario hygienists will be self-regulating. The work has not yet been completed. Much is to be done before self-regulation comes into effect. The Ontario delegation toasted C.D.H.A. for their support (picture page 102).
5. Membership workshop - the priority will be students, and providing members with the services they desire from C.D.H.A. As part of the regional seminars for public relations, a membership seminar will be planned in the near future.

Saturday June 6

- Board Meeting - Skyline Hotel

Greetings were presented to C.D.H.A. by the C.D.A. Representative Dr. John Christie.

The voting structure on executive council was changed to include the Immediate Past President - acknowledging that the Past President has a historical perspective on issues.

Active membership dues are to be increased annually (this was not unanimous). Dues will be increased five dollars in 1988 and five dollars in 1989. The last increase in C.D.H.A. dues was three years ago.

The Canadian Dental Hygienists' Association and the American Dental Hygienists' Association have established a liaison committee composed of three members from each country. This liaison will occur annually at alternating sites, for the sharing of information and the planning of dental hygiene strategies with a North American approach.

Several committees have been renamed to more accurately describe their functions:

- A. Legislative Committee - Government Affairs
- B. Community Dental Health - Health Promotion
- C. Manpower and Utilization Committee - Professional Resource Utilization Committee
- D. Life/Honourary Committee - Awards Committee

The 1986-87 executive was thanked by incoming President Ellen Brownstone and the gavel was officially exchanged.

Sunday June 7

- After-Board Workshop -
Doral House

Small group discussions occurred around methods to disseminate information to the membership. Hopefully more C.D.H.A. news will appear in provincial newsletters.

There was discussion relating to the development of a protocol for provincial presidential visits. This was a response to a motion by the Board. Executive council will use the ideas generated at the workshop to develop the protocol in time for upcoming presidential visits.

The concerns of several provinces regarding the concept of a national exam were addressed. If the table of specifications are not acceptable to the provinces, the exam process will not be developed further. However, a self-assessment instrument would enhance our plans for quality assurance. The primary purpose of national certification is to enhance portability.

Pamphlets promoting "A Career in Dental Hygiene" are now available from Central Office on a cost recovery basis of 20¢ a copy. The "Portability Pamphlet" is currently being updated.

The name of the official publication of the C.D.H.A. is now "The Canadian Dental Hygienists'

Association Journal: Probe". This is a compromise to satisfy both academic and marketing concerns. Should funding be available, the Journal will publish six issues in 1989. This will coincide with the international Symposium and C.D.H.A.'s Silver Anniversary.

C.D.H.A. Board of Directors



*Ontario Directors
propose a toast
to the achievement
of self-regulation*



The Board adopted the protocol for a Distinguished Service Award to recognize outstanding achievement in the field of dental hygiene. This award is to be presented annually and nominations may come from any C.D.H.A. member. Criteria will be printed in the Winter issue.

C.D.H.A. will develop a table of specifications for a national certification examination and will seek external funding for the project. The process will be similar to that used by the N.D.E.B. to certify dentists. The accreditation process will not be jeopardized.



*Ellen Brownstone, President and
Dianne Gallagher, Past-President*



*Sheryl Feller, Speaker
of the 1987
Board of Directors
Annual Meeting*



*Our sincere thanks to Frank W. Horner
Inc. for their sponsorship at the
President's reception.*

Overview

Thirty-five Board Members, Committee Chairs and interested guests met for an intensive three day meeting to determine C.D.H.A.'s operations and policies for the next year. These dedicated representatives worked long and hard on behalf of all Canadian hygienists. The high energy and quality of discussion indicated that hygienists are concerned with their future and the promotion of health care to all citizens. The intimate surroundings of Doral House (where most of the participants stayed) fostered camaraderie and facilitated the informal discussions necessary for a productive session. Securing the Board Meeting in Ottawa has increased efficiency and reduced expenses.

This was my first complete Board Meeting; I was impressed! Should

you be in Ottawa next year, you are encouraged to attend as an observer. ■

Fran Cotton
Editor

The Board of Directors is pleased to announce that Joanne Clovis has been honoured with Life membership in C.D.H.A. in appreciation of her considerable contribution to Dental Hygiene in Canada.



Joanne Clovis

Joanne Clovis is an Albertan who has travelled extensively and continues to bring home to Alberta her experiences and expertise. She received her formal education at the University of Alberta in Edmonton: a Diploma in Dental Hygiene in 1967; a Bachelor of Education degree in 1974; and a Master of Science degree in 1985. Her professional experience includes teaching in public schools in the Northwest Territories and practising dental hygiene in a variety of

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settings – public health, private practice, and dental hygiene education. A unique three-month public health experience in the British Virgin Islands in 1977 became the basis for Joanne's commitment to community health. Currently she lectures in community health in Dental Hygiene at the University of Alberta and is the Senior Dental Health Consultant for Alberta Community and Occupational Health.

Joanne's special interests in preventive dentistry are fluorides, community health program planning and evaluation, and dental hygiene legislation. She has presented papers and posters at research conferences and has published in *The Canadian Dental Hygienist* and the *Journal of Dental Research*. She currently has papers accepted for publication in *Caries Research* and *Community Dentistry and Oral Epidemiology*.

Joanne has always been an active member of the Alberta Dental Hygienists' Association and has held the offices of President and Dental Health Month Chair, and the appointment of Parliamentarian. She is one of two A.D.H.A. members of the Dental Occupations Council, a legislative body responsible for developing regulations for dental assistants and dental hygienists. Joanne's involvement in the C.D.H.A. has been as Speaker for the Board (1981 and 1985) and Chairman of the Standing Committee on Community Dental Health. In the latter capacity, Joanne was awarded a grant by Health and Welfare Canada to develop and distribute a Dental Guide for Older Adults on behalf of C.D.H.A.

Membership on the C.D.H.A. Board of Directors and membership on the federally funded Working Group on the Practice of Dental Hygiene have been, Joanne says, her greatest learning experiences. She is grateful for having had the opportunity to work with dental hygienists from across the country – "some old, some new, and all enthusiastic and supportive of dental hygiene!" ■

PROFESSEURS DE PROGRAMMES DENTAIRES

L'École des sciences de la santé, département des programmes paramédicaux et sciences biologiques, est à la recherche d'un professeur à temps plein pour la section des programmes dentaires.

Fonctions:

- faire de l'enseignement et de la surveillance dans la composante clinique du programme Hygiène dentaire;
- faire de l'enseignement de cours théoriques dans le programme Hygiène dentaire et Soins dentaires;
- participer à la bonne marche et à l'entretien général des vingt-quatre fauteuils de la clinique dentaire du Collège.

Exigences:

- être titulaire d'un certificat de compétence ou être admissible au certificat d'hygiéniste dentaire de l'Ontario
- compter depuis les cinq dernières années, au moins trois années d'expérience de travail à plein temps comme hygiéniste dentaire;
- posséder une formation universitaire au niveau du baccalauréat, préférablement dans le domaine de l'éducation (un atout);
- avoir une expérience dans l'enseignement de cours théoriques et cliniques dans un collège d'arts appliqués et de technologie ou une université est souhaitable;
- posséder la capacité de communiquer dans les deux langues officielles est essentiel.

Salaire: \$24,548 – 47,941

Commencement: aussitôt que possible

Pour des plus amples renseignements, veuillez composer le 1-613-727-7602 et demandez la directrice du département, Madame Sharon Couture.

Concours:

- 64-87

Toutes personnes qui désire poser sa candidature voudra bien préciser le numéro du concours dans la demande qu'elle fera parvenir, par écrit au

Collège Algonquin
Ressources Humaines
1385, avenue Woodroffe
Nepean, Ontario
K2G 1V8

Le Collège offre à tous des chances égales d'accès à l'emploi

CONTINUING EDUCATION

British Columbia – Continuing Education Courses for Dental Auxiliaries

September 19

AN UPDATE ON GLASS IONOMER CEMENTS

Joe J. Simmons, D.D.S., F.A.C.D.,
F.I.C.D.

Mary Shaffer, C.D.A.

Group II – 7 hours of lecture &
demonstration

UNLIMITED ENROLMENT

Group III – A.M. lecture & P.M.
clinical participation

LIMITED ENROLMENT: 40

Auxiliaries

Tuition: Group II \$65; Group III \$90
Instructional Resources Centre,
Lecture Hall #6, U.B.C.

September 26

GENERATING HEALTH IN THE ORAL ENVIRONMENT

William K. Hettenhausen, D.D.S.

7 hours of instruction

Tuition: Auxiliaries \$65

Instructional Resources Centre,
Lecture Hall #6, U.B.C.

October 8, October 22,

November 5, November 19

THURSDAY EVENING LECTURE SERIES FOR DENTAL

HYGIENISTS – 7:30 – 10 P.M.

October 8

MANPOWER AND ALTERNATIVE DELIVERY SYSTEMS

Don MacFarlane, D.M.D.

Larry Rossoff, D.D.S.

October 22

OSSEOINTEGRATION – A NEW FRONTIER IN DENTISTRY

Peter Stevenson-Moore, B.D.S.,
L.D.S., R.C.S., M.S.D., M.R.C.D.(C)

November 5

A REVIEW OF SELECTED TOPICS IN DENTAL HYGIENE PRACTICE

Ron Fulton, D.M.D., Dip.Perio.
(Coordinator)

Danne Mykietyn-Sherstobitoff, B.S.

Teri-Lee Norfolk, Dip.D.H.

Colleen Webb, Dip.D.H.

November 19

THE USE OF XYLITOL CONTAINING PRODUCTS IN CARIES PREVENTION

Daniel Kandelman, D.D.S.,
D.M.D., M.S.

10 hours of instruction

Tuition: \$65; \$18 individual
lectures

G.F. Strong Rehabilitation Centre
Auditorium, 4255 Laurel Street,
Vancouver, B.C.

October 16, 17 & November 7

LOCAL ANAESTHESIA FOR DENTAL HYGIENISTS

Stephanie Brawn, Dip.D.H., B.A.

David Donaldson, B.D.S., F.D.S.,
R.C.S., M.S.D.

Ellen Stradiotti, Dip.D.H., B.A.

Colleen Webb, Dip.D.H.

21 hours of instruction

Tuition: \$275

Faculty of Dentistry, U.B.C.

LIMITED ENROLMENT: 40
participants

November 14

PRACTICAL INFECTION CONTROL IN THE DENTAL OFFICE

Robert R. Runnells, D.D.S.

7 hours of instruction

Tuition: Auxiliaries \$65

Instructional Resources Centre,
Lecture Hall #6, U.B.C.

December 5

DENTAL PHOTOGRAPHY

Clifford Freehe, R.B.P., F.B.P.A.

7 hours of instruction

Tuition: Auxiliaries \$65

Instructional Resources Centre,
Lecture Hall #6, U.B.C.

M.D.H.A. Continuing Education

Wednesday, October 7, 1987 –
7:00 p.m. – 9:30 p.m.

“INDIVIDUALIZING PREVENTION: DIFFERENT PERSPECTIVES”

Keith Levin, D.M.D., M.Sc. –
Orthodontist

Rhonda Plett, Dip. D.N., R.D.H. –
Public Health Dental Hygienist/
Dental Nurse

Dorie Schmidt, R.D.H. – Periodontal
Practise Dental Hygiene

This course will involve a panel
discussion emphasizing individual
preventive approaches to patient
care to improve and maintain oral
health.

Tuition: \$35.00

Saturday, November 21, 1987
– 9:00 a.m. – 5:00 p.m.

“DENTAL HYGIENE SEMINAR”

Dr. Alan Milnes – “Fluoride Update”

Dr. David Rusen – “New Research
on Implants”

Dr. Dale Gelskey – “Radiation
Safety”

Dr. Ron Boyar – “Antibiotic
Prophylaxis”

Dr. Amasis Louka – “Esthetic
Dentistry”

Ms. Jocelyn Lussier – “Professional
Hand and Nail Care”

This program will focus on
updating information in several
areas of dentistry that have been in
the forefront in recent years due to
recent developments and/or
controversy in the area.

Tuition: \$50.00

There will be a luncheon included
with this program.

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Professional Education
Room 4063 Dentistry/
Pharmacy Building
Faculty of Dentistry
University of Alberta
Edmonton, Alberta, Canada
T6G 2N8
(403) 432-5023 or 432-8240

CFDE - Hygienists Benefit, too!

Are you aware of what the Canadian Fund for Dental Education does and, in particular, what it does for dental hygiene in Canada? Do you know why CFDE needs your support?

CFDE is a non-governmental, charitable organization which funds projects to benefit various aspects of dental education and the dental delivery system. Since it was set up in 1962 (we are proud to be celebrating our 25th anniversary this October), the Fund has provided over two million dollars for a variety of programs that benefit every member of the dental health team in Canada.



CFDE Donors

Dental Hygienists 1986

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Gallagher, S.D., Regina, Sask.
Gardner, W.J., Vancouver, B.C.
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Grant, L., Unionville, Ont.
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Hygiene Society, Vancouver, B.C.
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Québec, Qué.
Kline, C., Vancouver, B.C.
Kolthammer, M.A., Kamloops, B.C.
Larder, P.M., Halifax, N.S.
MacDonald, K.F., Halifax, N.S.,
McGuire, V., Ottawa, Ont.
McLachlan, M., London, Ont.
New Brunswick Dental Hygienists'
Association
Stevens, L., Toronto, Ont.
Weinberg, S., Thornhill Ont.

In 1986 alone, \$18,800 was allocated to projects specifically aimed at hygienists. This included your "Let's All Learn" Conference, the CDHA Dental Educators' Workshop, two teacher training fellowships and various projects of the ODHA, which are underwritten by a corporate sponsor.

CFDE wants to increase the number and variety of projects it supports, but we need your help to do so. Although the total donations from hygienists increased in 1986, the number of individuals contributing has decreased. We have been able to reach very few of you and convince you to become regular donors. CFDE offers you a way to combine your individual contributions with those of others in the dental field to support programs which promote better dental health for all Canadians.

Take advantage of CFDE Month this October to help ensure a bright future for your profession. Send your donation to:

Canadian Fund for Dental Education
Suite 105 - 1815 Alta Vista Drive
Ottawa, Ontario K1G 3Y6

Or call (613) 731-0493 and use your Visa card to make your donation.

All gifts are tax deductible and donations of \$25.00 or more are formally acknowledged in the Fund's Honour Roll of Contributors, published in the April issue of the Journal of the Canadian Dental Association. A gift to CFDE is a gift to your profession! ■

J. Fred Reid, D.D.S.
*Chairman, Board of Trustees
Canadian Fund for Dental
Education*

Invitation to Participate

MEMBERSHIP

Charla Lauter-Lemay
C.D.H.A. Membership Chairman

As in the past, the Fall issue of the Journal details membership information and registration fees. C.D.H.A. is actively *working for you*, investigating alternate insurance plans and RRSPs. This year our priority is student membership; hopefully graduates will continue to participate in C.D.H.A.

Writing an article on membership is like "preaching to the converted". Those who read this article are probably already members of C.D.H.A. This year, due to budget restraints, the journal will not reach all Canadian hygienists. Therefore, it is up to us to recruit new members - AN INVITATION TO PARTICIPATE. If each member encourages a non-member to join C.D.H.A., membership will double! The following are some answers to assist you with frequently asked questions:

Question:

Other than a few publications, what do I get for my money?
What's in it for ME?

Answer:

Just read the Journal and you will find out what CDHA does with your money. The recent National Survey was supported by CDHA. CDHA produced "Smile for Life." CDHA participated in the Health Promotion Campaign. Through CDHA you are represented on various educational, dental and health related associations as well as government bodies. CDHA donated monies to Ontario for self-regulation.

Just as voting is a civic duty so is membership in your Association a professional duty. Responsibility and obligation to your Association reaps many tangible benefits:

- Representation on other professional groups and to government.
- Information about your profession.
- Access to information on salary guidelines, placement services, portability, accreditation, manpower and salary surveys, library services, and workshops related to dental hygiene.
- Group rates on insurance such as home/auto, liability, disability.
- Discounts on car rentals and hotel accommodations.
- Networking and fellowship with individuals with the same problems and concerns.

Question:

What happened to the money that was allocated for Malpractice Insurance?

Answer:

A \$10.00 rebate was given. Funds were diverted through other channels - and are still working for you.

Question:

I don't have the time to belong.

Answer:

You don't have the time for what? You don't have time for your career, for your profession? Membership in the Association can take as little or as much time as you wish to give it. The opportunities for participation are practically limitless, but the requirements are practically none. The value of anything is its relative worth. So if your career, your profession is worth anything to you, then membership in the Association should be equally important. Ultimately, the true value is your personal input.

Question:

Why should I join my Association if all I need is my license to practice?

Answer:

Licensure is to protect the public, the consumer; CDHA protects its members, the dental hygienist, you.

Question:

When does my official membership begin and end for a year?

Answer:

November 1st to October 31st.

Question:

I only work part time, why do I have to pay full membership fees? Why isn't there a part time employment category? Can that be included in Support Membership?

Answer:

Regardless of the number of hours a week you work, you are a professional dental hygienist. You receive all the benefits of active membership. Support membership is for those that do not practice dental hygiene. If there was a category for "Part time", where would be the cut off? Is 4½ days part-time? How would the membership be monitored? Either you are a practicing dental hygienist - or not.

Question:

I am not planning on working next year, why should I join?

Answer:

You can join the Association as a Support Member. You would be able to keep in touch with your colleagues, attend the conventions, receive the publications - to keep informed of what is happening in the dental hygiene profession and receive all other benefits of membership for a substantially lower fee.

Question:

I'm on maternity leave, but time off work does not quite fit into the membership year for Support membership. Can you have a maternity leave category?

Answer:

If one is not practicing dental hygiene, I would opt for the Support membership. For example, take one year of Support if you plan to be off many months.



I hope that you are able to take the opportunity to encourage a hygienist who works at your office, or in your building; the former classmate who has remained a friend; or just the hygienist you see and talk to every once in a while - with an invitation to participate.



These are combined fees for provincial associations and C.D.H.A.

FEE SCHEDULE

PROVINCE	ACTIVE	SUPPORT	STUDENT
Alberta	130.00	40.00	40.00
British Columbia	121.00	40.00	30.00
Manitoba	90.00	29.00	27.00
New Brunswick	90.00	30.00	25.00
Newfoundland	90.00	30.00	25.00
Nova Scotia	105.00	25.00	25.00
Ontario	145.00	55.00	50.00
Prince Edward Island	90.00	25.00	25.00
Quebec	70.00	25.00	25.00
Saskatchewan	130.00	45.00	40.00

Fees are payable on or before October 31, 1987

Associate Membership Fees:

Associate membership allows out of province residents the opportunity to support a provincial association.

Alta. - \$15.00 B.C. - \$15.00
 Man. - \$4.00 N.B. - \$5.00
 Nfld. - \$5.00 Ont. - \$30.00
 Sask. - \$20.00 P.E.I. and N.S.
 - no charge

Saskatchewan Residents:

Saskatchewan residents submit fees in January with their provincial licence fee.

Non-Canadian Residents:

Associate membership for C.D.H.A. is available if you reside out of Canada. The fee is \$25.00. You may join the provincial association of your choice as an associate member.

MEMBERSHIP CLASSIFICATIONS

A. Active. Active membership may be granted to any person who is legally eligible to practice dental hygiene in any of the provinces of Canada and who will support and promote the objectives of the association.

B. Life. Life membership may be granted to an active member who has made an outstanding contribution to dental hygiene and to this association. Such individuals shall be approved by the board of directors.

C. Student. Student membership may be granted to any student enrolled full time in a dental hygiene program, or to a graduate dental hygienist who is enrolled full time in

either a college or university program, and who will support and promote the objectives of the association.

D. Associate. Associate membership may be granted to a dental hygienist who resides in North West Territories, Yukon Territories or outside of Canada, and who will support and promote the objectives of the association.

E. Honorary. Honorary membership may be conferred upon individuals who are not dental hygienists but who have substantially contributed to the profession of dental hygiene. Such individuals shall be approved by the board of directors.

F. Support membership may be granted in individuals who are not dental hygienists, or dental hygienists who are not working as dental hygienists for the membership year, who

support and promote the objectives of the Association.

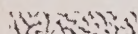
Support membership is not available to dental hygienists who fall into any other membership category. Support members may not serve as Directors, Committee Chairpersons, representatives or appointive officers of the Association.

If you wish to maintain or apply for ASSOCIATE MEMBERSHIP in another province of residency, please indicate the provincial ASSOCIATE membership on the application form. Send the additional appropriate fees along with the form and ACTIVE MEMBERSHIP fees. The province will be notified and receive your payment

Insurance

- CDHA Insurance Consultant, Ron Berry, who is not affiliated with any insurance companies offering plans to hygienists, will assist with information, agents and problems c/o Merit Insurance Brokers, 5400 Yonge St., Suite 201, Willowdale, Ont. M2N 6G1. (416) 497-3555





THE ALBERTA DENTAL HYGIENISTS' ASSOCIATION

Dear Dental Hygienists,

The Alberta Dental Hygienists' Association is preparing for another ambitious year and requires your support and participation to ensure our future plans will be successful.

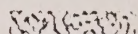
At present, there are many changes that are being formulated to help make dental hygiene in Alberta an even more "professional" and recognized career. We are currently pursuing legislation possibilities regarding licensure, registration, and self-regulation of dental hygienists in Alberta. This has been, and will continue to be, a challenge for the ADHA and we need everyone's support and ideas.

The ADHA has also been involved in Dental Health Month activities, Continuing Education Days, Provincial Conventions, and many other endeavors. Our two component societies - the Northern Alberta Dental Hygienists' Society and the Southern Alberta Dental Hygienists' Society - are active with monthly and bi-monthly activities which ALL hygienists are encouraged to attend.

In order to have a strong professional association, we need a strong membership. We need YOU!

If you have any questions regarding membership, please feel free to contact me.

Sincerely,
Jackie Tiedemann
 ADHA Membership Chairperson
 18835-81 A Avenue
 Edmonton, Alberta
 T5T 4S5
 403-481-5271



ONTARIO DENTAL HYGIENISTS' ASSOCIATION

Self-Regulation, the opportunity to guide the future of dental hygiene in Ontario, has been granted to Ontario dental hygienists! Get involved, show your professional commitment by joining CDHA/ODHA - an established professional group that allows you the opportunity to network with colleagues who have similar ideals and goals. Take the opportunity to meet with your fellow professionals at local component meetings.

NORTHERN ONTARIO

ALGOMA (Sault Ste Marie)
 contact: Diane Greenwood
 705-759-2154
 THUNDER BAY
 contact: Gail Sargent
 807-345-7847

NORTH-CENTRAL ONTARIO

SUDBURY
 contact: Joan Chabot
 705-855-5285
 SIMCOE COUNTY
 contact: Nancy Orschel
 416-773-1680

NORTH EASTERN ONTARIO

OTTAWA (Ottawa, Nepean, Cornwall)
 contact: Christine Ryan
 613-836-2451
 RENFREW
 (Pembroke, Arnprior)
 contact: Gwen Ringrose
 613-432-6884

SOUTH EASTERN ONTARIO

DURHAM (Oshawa, Pickering, Cobourg)
 contact: Cynthia Rutherford
 416-372-6753
 KINGSTON & DISTRICT (Belleville, Brockville)
 contact: Merrill Jeffries
 613-544-0954
 PETERBOROUGH-LINDSAY
 contact: Deborah Jutras
 705-292-5238

SOUTH-CENTRAL ONTARIO

HAMILTON (Ancaster, Brantford, Caledonia)
 contact: Elizabeth Sonke
 416-842-4559
 HALTON-PEEL (Brampton, Mississauga)
 contact: Marlene Heics
 416-622-1351
 NIAGARA REGION
 contact: Susan Matheson
 416-934-6971
 TORONTO CENTRAL
 contact: Mary Carere
 416-789-1620

*Invitation
 to Participate*

TORONTO NORTH (Scarborough,
Newmarket, Willowdale)
contact: Barbara Greenglass
416-226-0436
WATERLOO-WELLINGTON
(Guelph, Cambridge,
Kitchener-Waterloo)
contact: Anne Rogers
519-578-4754

SOUTH-WESTERN ONTARIO

LONDON (London, Woodstock,
St. Thomas)
contact: Marilyn Topham
519-472-3712
SARNIA-LAMPTON
contact: Jane Wood
519-542-2893
WINDSOR-ESSEX
contact: Ellen Williams
519-966-2418

~~BRITISH COLUMBIA~~

BRITISH COLUMBIA DENTAL HYGIENISTS' ASSOCIATION

B.C.D.H.A. works hard to serve its
membership. We are your voice in
matters regarding the practice of
dental hygiene in B.C. Get involved.
Join us. Support *your* professional
association.

For more information contact:

Jo Gardner
Executive Secretary
P.O. Box 151
Madiera Park, B.C. V0N 2H0
tel: (604) 883-9209

or

Tina Letham
Membership Chairperson
P.O. Box 237
Salmon Arm, B.C. V0E 2T0
tel: (604) 832-8676

~~QUEBEC~~

THE QUEBEC DENTAL HYGIENISTS' ASSOCIATION

Q.D.H.A. invites you to join for the
1987-88 year. Membership dues of
\$67.00 are due November 1, 1987
and should be sent to Q.D.H.A.

Q.D.H.A. has gone through many
changes this past year. These
changes include a new look for
your journal "Le Point de Contact"
which is now larger, coloured and
BILINGUAL.

Last year, Q.D.H.A. sponsored two
continuing education courses at a
very low cost to members. We plan
to do the same this year with the
first continuing educational session
to be held October 24, 1987, place
and subject to be decided.

Q.D.H.A. invites you to attend this
October 24th continuing education
- come see what Q.D.H.A. is all
about.

Chris Wooley

LAST NAME _____
FIRST NAME _____ INITIAL _____
BIRTH NAME _____
STREET _____
CITY _____
PROVINCE _____ POSTAL CODE _____
TELEPHONE (home) _____ TELEPHONE (office) _____
SCHOOL OF GRADUATION _____ YEAR OF GRADUATION _____
EMPLOYMENT
☐ Private Practice ☐ Education ☐ Public Health ☐ Other
METHOD OF PAYMENT
☐ CHEQUE ☐ VISA # _____ Expires _____
AMOUNT ENCLOSED \$ _____

Attach mailing label here

Invitation to Participate

MEMBERSHIP

- ☐ ACTIVE
☐ SUPPORT
☐ STUDENT
PROVINCE _____

AMOUNT \$ _____

- ☐ ASSOCIATE
PROVINCE _____

AMOUNT \$ _____

- ☐ CDHA ASSOCIATE
OUT OF COUNTRY ☐

AMOUNT \$ _____

TOTAL FEES
ENCLOSED

\$ _____

1987 NATIONAL SURVEY OF DENTAL HYGIENISTS

Patricia M. Johnson, RDH, BScD,
MSc. Principal Investigator,
Canadian Dental Hygienist Study

Response rate – 84% and increasing!

The response to the 1987 national survey of dental hygienists has been outstanding. Of the approximately 6500 survey questionnaire forms mailed May 1st, 83.6 per cent were completed and returned by August 10th. Table One indicates the distribution of responses by province and territory. Returns continue to be received and special efforts are underway to trace dental hygienists for whom current addresses are lacking. The goal of 85 per cent response rate is within reach.

Of particular interest is the high number of respondents who included comment statements. A groundswell of opinion on a number of issues critical to dental hygienists has been tapped. A content analysis will be conducted to ensure the views of these respondents are reflected anonymously in the final report.

Congratulations and a hearty thank you!

A special thank you goes to all those dental hygienists who have completed and returned their questionnaires. The level of response is remarkable for a survey of this scale. It will help to ensure the

CURRENT PROFILE & FUTURE DIRECTIONS

DENTAL HYGIENE IN CANADA

validity of the information collected. It will enhance the credibility and usefulness of the findings of the study for which this survey was undertaken.

The dental hygiene profession is to be congratulated for the support provided both through its professional organizations and agencies and its individual members. The commitment and leadership expressed through this support is consistent with the process of professional maturation. Dental hygiene is evolving into a more established and recognized profession, prepared to undertake activities in both its own and the public interest.

The remaining challenge: Tracing the missing few!

One objective of the study is to determine the current potential and actual dental hygiene work-

force. This information is needed to establish the attrition rate from dental hygiene and to derive estimates of future supply. Ideally, we want to locate and receive replies from every dental hygienist who is registered to practice and currently is residing in Canada – whether or not the individual is working or intends to work at dental hygiene.

I have the challenge of analysing and preparing a report to do justice to the excellent quality of the information provided. I ask you, as individuals and through your local associations, to undertake the challenge of locating the MISSING FEW. While particular emphasis should be given to those provinces for which response rates ranked below the national average (see Table One), let's try to achieve a minimum 85 per cent response rate for all areas.

Table One: Response to the 1987 Census Survey of Dental Hygienists in Canada, Ranked by Province and Territory.*

Rank	Location of Residence	Responses % (n)
1.	North West Territory	100.0 (1)
2.	Newfoundland	88.5 (23)
3.	Quebec	86.3 (1315)
4.	Alberta	85.9 (538)
5.	Saskatchewan	85.3 (99)
6.	Ontario	84.6 (2340)
	Prince Edward Island	84.6 (22)
7.	Manitoba	79.8 (253)
8.	British Columbia	79.5 (546)
9.	Military	78.6 (55)
10.	New Brunswick	75.6 (65)
11.	Nova Scotia	70.5 (182)
12.	Yukon	66.7 (2)
	CANADA (N = 6505)	83.6 (5441)

*Response rate for the period May 1 to August 10, 1987.

The MISSING FEW likely will fall into three categories:

1. Dental hygienists whose questionnaires have been returned by Canada Post as undeliverable -

We need your help to locate current addresses and, where appropriate, name changes for the persons listed below. Names are grouped by last known province-of-residence.

2. Dental hygienists whose name for some reason does not appear on the mailing list -

Please send us the name and address for any dental hygienist who has not yet received a questionnaire and who is registered, although not necessarily currently licensed, as a dental hygienist in a province or territory of Canada.

3. Dental hygienists who have received but not yet responded to the survey questionnaire -

Encourage these colleagues to complete and return their survey forms immediately. If they have misplaced their forms, please forward their names and addresses and a replacement form will be sent to them. ■

Address mailing information to:
CANADIAN DENTAL HYGIENIST
STUDY

University of Toronto
Department of Health
Administration
McMurrich Building
12 Queen's Park Cres. W.
Toronto, Ontario
M5S 1A8.

Can you help us to locate the following persons?...

Prince Edward Island

DOUGHERTY, Donna
REID, Bernadette
WALL, Sonja

Nova Scotia

ANDREW, Nellie
BILLETT, Paula
MacLEAN, Leo
McPHERSON, Leslie

New Brunswick

BENOIT, Linda
LANG, Sylvie
VIEUX, Martine

Quebec

BENOIT, Louise
BERTRAND, Lucie
DEBUT, Lucie
DEPTUCK, Carole
DESCHENES, Adele
DUMAS, Nicole
GAGNE, Diane
GAUTHIER, Christine
GREGOIRE, Lucie
HALASZ, Kathy
JACOB, Sylvie
LACOSTE, Anne
LAFOND, Chantel
LANDRY, Johanne
LUSSIER, Celine
McINNES, Shirley
MENZEL, L.
PERREAULT, Danielle
PINET, Martine
TURGEON, Aline
ZYMELKA-FORREST, Mary

Ontario

ALM, Lynne
ARNOLD, Janet Aquilina
BAURENHOFER, Helen
CAMERON, S.
CORSON, Deborah
DELANEY, Lee Hart
DRURY, Karen
GROLEAU, Laurie

LAFFERTY, Ruthann
 LANDZBERG, Toby
 LeBLANC, Marlene
 LUCACIU, Dorina
 MacPHAIL, Susan
 MARROW, Melissa
 McCLENNAN, G.
 McKAY, Linda Pickerell
 PARKINSON, Kimberley
 PHILLIPS, Cindy
 REID, Susan
 RICH, P.
 RUTHERFORD, S. Lutz
 TURRELL, Lori
 VANDERSTELT, Debbie
 VAN ROOSMALEN, Evelyn
 VERHOEVEN, Wilma
 WHITE, Karen

Manitoba

ARPIN, Aline
 BELCHER, Barbara
 CLAUSEN, A.
 GORDON, M. Nan
 FRASER, S/Sgt. J.
 KEHLER, Gloria
 LECLAIR, Dorothy
 MOORE, B.
 PHILLIPS, Terry
 TURNER, Naomi

Saskatchewan

PEDERSON, Donna

Alberta

AUNET, Joan
 BROWN, Candace
 BUCHANAN, Heather
 DOODY, Patti
 ELGERT, Linda
 FAIRBANKS, Tracy
 GERNHARD, Kathy
 GRANT, Lynn
 HARRIS, Vicky
 NUNWEILER, Roxanne
 PEAKER, Shannon
 RITCHIE, Eileen
 SHIMBASHI, Michaelle
 SKORETZ, Renee
 STEWART, S.
 TAKAHASHI, Karen

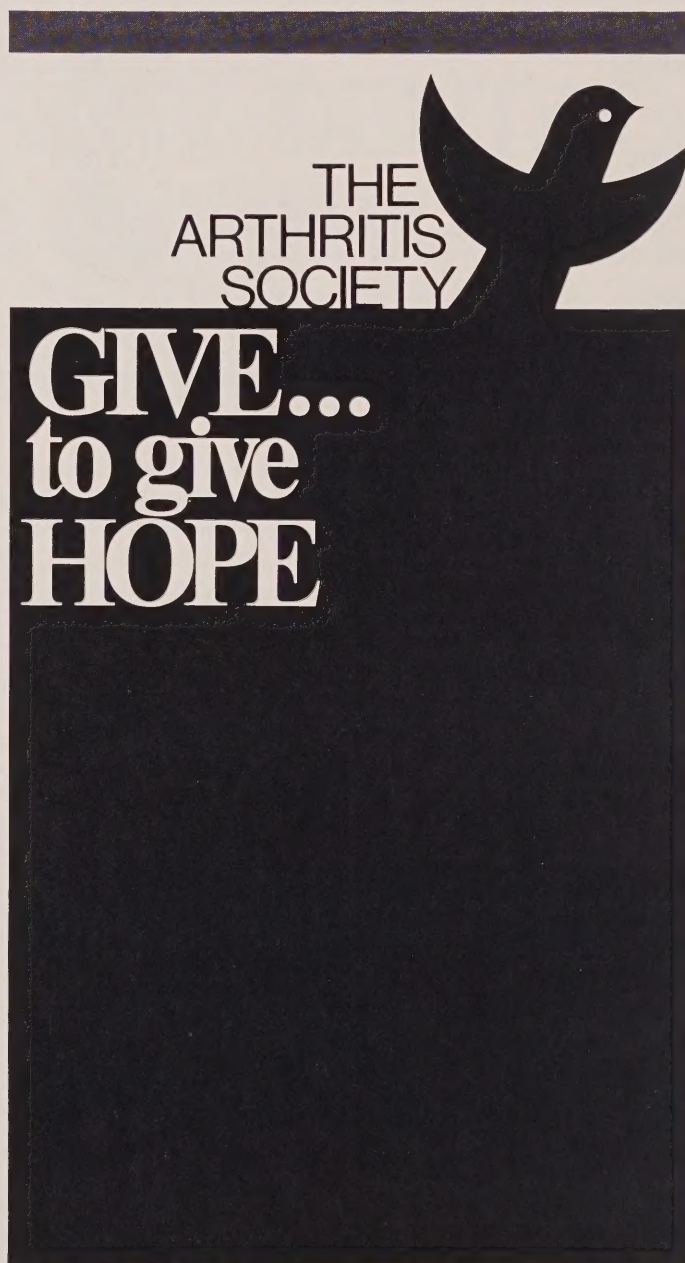
British Columbia

ADAIR, Nancy Veert
 BLADE, Diane Matecki
 BROUSSON, Carmen
 FRANK, Lana
 GEORGE, Valerie
 GODFREY, Barbara
 GRAY, Sharon
 HALLEY, Colleen
 LaFLEUR, Susan
 MAH, Lillian
 MacPHAIL, Susan
 McCLOY, Deborah
 McKAY, Linda Pickerell

McDOUGALL, Niccki
 McGOWAN, Joanne
 MILAIRE, Carol Anne
 MILLER, Judy Anne
 POPE, Elaine
 PORTER, Colleen Kondro
 ROBERTSON, Kathy
 SCHNEIDER, Beverley
 TALBOT, Linda
 TURNER, Carol
 VILARDI, Carmela

Yukon

CATHERS, Mary Lou



Wynne Young,
B.A., Dip. D.H., M.Ed. Candidate
Evaluation Analyst
Saskatchewan Finance
Treasury Board



As an Evaluation Analyst with the Saskatchewan Finance's Treasury Board, my job responsibilities include researching, analyzing, recommending and reporting to the Provincial Treasury Board or Cabinet on issues of concern to them. These issues may arise from budget initiatives of the government or may be proactive and aid in the planning of future government direction. In either instance, my work has spanned the full range of government departments and has given me exposure to many new areas.

Since joining the Treasury Board staff I have been involved with many types of projects including short-term budget-related ones and more comprehensive cross-departmental administrative policy projects. Of particular interest are the social policy projects where I helped determine the best use of the province's limited financial resources in a way that best addresses the changing social needs in the province. These policy projects are perhaps the most interesting and certainly the most challenging because no 'right' answer exists and therefore you must attempt to find the balance between many complex factors.

My time with the Treasury Board has opened widely my window to the world and has helped me place dentistry and health in a context with the rest of government and society. It has also given me the opportunity to work and learn alongside many bright, interesting people and thus, has allowed me to grow professionally. Specific skills such as writing, critical thinking, computers and budget knowledge have been more fully developed.

Work of this nature is an excellent opportunity for anyone wishing to develop important skills and learn (at a very rapid pace) the operations of a government.

In addition to the skills I am learning and improving in my work at Treasury Board, I had many skills which I brought from the field of dental hygiene. During my ten year career in dental hygiene, I have been involved in public health, teaching, administration and various types of private practice. In each of these areas I developed certain skills which, happily, I have found are not only transferrable to other areas of employment, but are often critical to success in other areas.

From private practice, I learned the skill of team playing. This skill, perhaps more than any other, has been useful to me in my work at Treasury Board. Few, if any, efforts are achieved by one person alone. As in dentistry where the receptionist, assistant, hygienist and dentist together form a team to provide complete client care, so does a government central agency form a team of an evaluation analyst, economist, statistician and line manager to solve a difficult problem. My years of private practice have given me the ability and appreciation for team work which I have now transferred to my work as an evaluation analyst.

My work in public health dental hygiene helped me in developing greater interpersonal skills. Those skills used in effective communication and working with teachers, parents, public health nurses, colleagues and superiors are much the same as those used in working with deputy ministers,

program managers and fellow analysts. The high level of 'people contact' that dental hygiene involves has allowed me to develop these skills and successfully transfer them to my new work.

My years of teaching clinical dental hygiene at the University of Alberta has also left me with many skills. The one that strikes me as most valuable and highly transferrable to other areas is that of decision making. In clinical dental hygiene, decisions are being made continuously, both by students and by instructors. Participating in and observing these decision making processes has given me insight into effective decision making, something which I am now finding extremely useful.

And finally, my work in the administration of the Saskatchewan Dental Plan has taught me valuable skills in leadership. By participation, though mostly by observation, I learned many styles of leadership and authority and the circumstances where each style may be appropriate. I also learned that the delegation of leadership and authority has many positive consequences which I will long remember.

The development of these transferable skills in the practise of dental hygiene has been essential to my career. I am sure that without these skills, I would not have been offered the opportunity to work with the Saskatchewan Government Treasury Board, a role which has given me a great deal of challenge and job satisfaction.

I believe all hygienists should be confident that the skills they have developed during their dental hygiene careers can be successfully transferred to many other areas of employment. With today's changing job market, many hygienists may have opportunities to expand into other areas. As I have learned, the skills developed in dental hygiene are highly valued in many fields. ■

THE IMPACT OF TEN YEARS OF B.Sc.D. (D.H.) GRADUATES ON CANADIAN DENTAL HYGIENE

Mai Pohlak,
Dip. Dent Hyg., B.A., M.Ed.
Coordinator
B.Sc.D. Programme

In June 1987, the University of Toronto graduated its tenth B.Sc.D. (Dental Hygiene) class.

Beginning in 1976-77 the Faculty of Dentistry, University of Toronto, has offered a special degree programme for a limited number of dental hygienists who wish to prepare themselves for academic positions or administrative responsibilities at the Community Colleges, Universities and other Health Care Centres.

The objective of the B.Sc.D. (D.H.) Programme in providing the graduate dental hygienists with a flexible sophisticated programme, allowing them to resume leadership positions in education, administration, senior level dental public health, consulting, research

and professional associations, has been achieved beyond expectations.

A recent survey of the graduates provided the following profile:

The Graduates:

Enrolment in the B.Sc.D. programme has fluctuated between one to six students since the inception of the programme. (Table I)

All candidates have been successful and the programme has not experienced a student withdrawing from the course prior to completion.

TABLE I - Number of Graduates
1978-89 - Total = 31

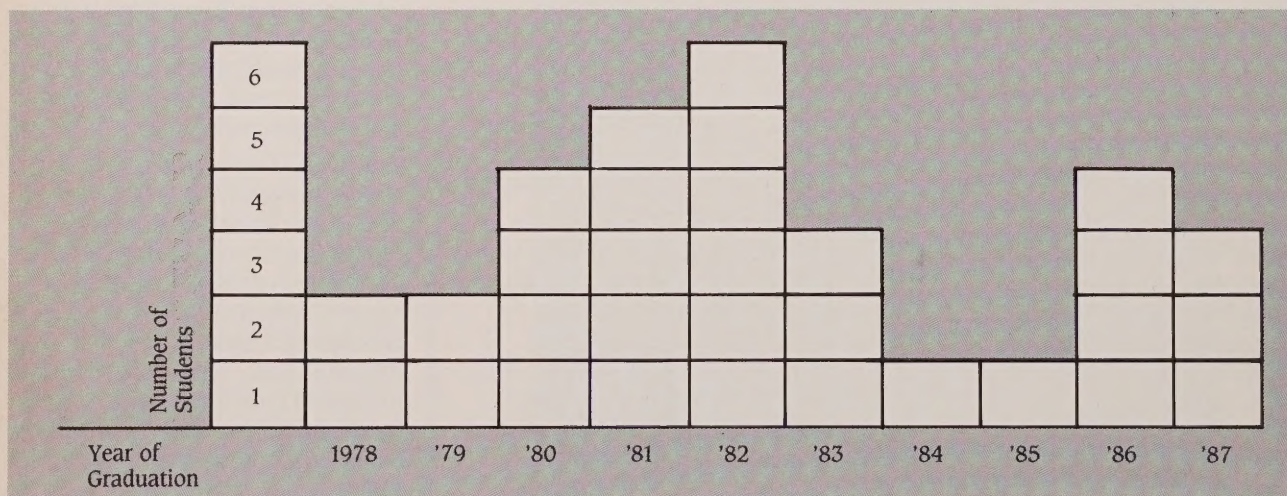


TABLE II - Residency of Graduates by Year of Graduation.

Number of Graduates	6										
	5										
	4										
	3										
	2	Ont	Ont	Ont	N.S.	Ont	Ont			Ont	Ont
	1	Ont	Alta	Ont	B.C.	Sask	Man	Ont	Ont	Man	B.C.
		1978	'79	'80	'81	'82	'83	'84	'85	'86	'87

Of the thirty-one graduates, twenty-two are residing in Ontario, three in British Columbia, two in Alberta, two in Manitoba, one in Saskatchewan and one in Nova Scotia. (Table II)

Over one third of the applicants to the B.Sc.D. (D.H.) programme came from outside Ontario. Five of these have remained in Ontario, while four Ontario dental hygienists are working in other provinces.

Alternate Practice Settings after Graduation

All but one graduate reported the B.Sc.D. being helpful in promoting their careers in Dental Hygiene.

The majority of the dental hygienists are employed by Community Colleges as Teaching Masters and Administrators. Universities and Dental Public Health Departments have been the second and third largest employers of baccalaureate hygienists. (Table III)

Table III

Employment Setting	Position	No. B.Sc.D. (D.H.) Employed
Community Colleges	Director or Coordinator of Dental Auxiliary Programs	7
	Teaching Master	5
Universities	Academic and Administrative	4
	Clinical & Clinical Teaching	2
Dental Public Health	Senior Level Dental Hygienist	3
	Supervisor	1
Hospital	Research Assistant	2
	Geriatric Dentistry	1
Royal College of Dental Surgeons	Executive Assistant	1
Private Practice	Regular Dental Hygiene Functions - Full-Time	2
	Part-Time	4
Unknown		1
Not working (By Choice)		1
Student	Full-time studies:	
	Postgraduate D.D.S.	1

The employment record reflects all of the positions held by the B.Sc.D. (D.H.) hygienists since graduation. The three 1987 graduates have not been included in this profile since complete information was lacking at the time of writing.

Other activities undertaken by the graduates include journal editing, involvement in local, provincial, Canadian and international associations, business management consulting and publishing. (Table IV)

Table IV

Editor, J.C.D.H.A.	2
President (Provincial Association)	2
Other Positions held in Associations	4 (reported)
Publishing	8* (reported)

**Of the 8 individuals, some have published a number of articles.*

The graduates of the B.Sc.D. programme have gained acceptance to postgraduate Master's programmes in Education, Public Health and Science. Of the 31 hygienists, 17 have either completed or are in the process of completing graduate education. (Table V)

Table V - Graduate Level Education after completing B.Sc.D. (D.H.)

Degree	Number of D.H. Enrolled or Completed
Ph.D.	1
M.A. in Ed.	2
M.Ed.	6
M.Sc.	3
M.P.H.	1
M.H. Sc.	2
M.B.A.	1
D.D.S.	1

About the B.Sc.D. Programme

In the survey the graduates were asked to comment on how the B.Sc.D. programme has been helpful in promoting their careers in dental hygiene. Following are the almost unaltered comments from the group.

- I consider my B.Sc.D. degree as a very valuable personal experience.
- Gave me knowledge and confidence to tackle difficult projects.

- Afforded an opportunity to investigate alternatives to private practice.
- The clinical duties which I am performing now (after graduation) are being done with more enjoyment, care and thoughtfulness.
- Left me hungering for more education.
- Chance to be an independent learner - letting me choose a variety of courses fitting in with my professional goals.
- Self-assured in my functions as a Teaching Master at a Community College.
- Prepared me to teach dentally related subjects at the college level.
- Honed my writing skills - never dreamt that I could publish a paper.
- Supplied me with qualifications for a teaching position and a research assistant.
- Stimulated an interest in teaching and administration.
- Benefits received through the B.Sc.D. training are not always immediately visible upon graduation.

No doubt all post diploma education will leave the graduates with positive feelings of accomplishment. It is however, with a greater sense of professionalism that the B.Sc.D. (D.H.) graduate leaves the University of Toronto, Faculty of Dentistry. ■

University of Toronto Faculty of Dentistry invites Applications to the B.Sc.D. (Dental Hygiene) Programme for the 1988/89 Session

For information write:

Dr. J. Mayhall
Admission, Faculty of Dentistry,
University of Toronto, 124 Edward Street,
Toronto, Ontario, M5G 1G6.

or call

Mai Pohlak, Coordinator, B.Sc.D. Programme
(416) 979-4504 - Faculty of Dentistry.

**DEADLINE FOR APPLICATIONS IS
MARCH 1st, 1988.**

■ THE ROLE OF THE DENTAL HYGIENIST ■ IN ACHIEVING HEALTH FOR ALL

Diane Gallagher
President, C.D.H.A.

Submitted to: Hon. J. Epp
Federal Minister of Health
May 1987

PREAMBLE:

The Canadian Dental Hygienists' Association (C.D.H.A.) is pleased to be able to respond to the published document: "Achieving Health for all: A Framework for Health Promotion." The Association wishes to express support for this very worthwhile document and welcomes the invitation to present its views and outline the potential of hygienists with respect to involvement in health promotion for Canadians.

The Epp Document outlines three major challenges currently inadequately addressed by health policies and practices in Canada:

- I. Reducing Inequities
- II. Increasing the Preventive Effort
- III. Enhancing People's ability to cope

Dental hygienists have the potential to impact health promotion with regard to all three challenges! They have, as a primary role, the responsibility to promote oral health and contribute to the total health of the public. This paper will elaborate on how that role relates to health promotion.

Reducing Inequities:

As the focus of health shifts to wellness and self-care, the role of the dental hygienist in health promotion and the prevention of dental disease could become more significant (Brownstone, 1983). Canada is experiencing a demographic shift to a more elderly population. (Lewis, 1986). Concurrently, a reduction in dental caries rates is being documented by researchers. There is also a slight increase in the incidence of root caries noted in older adult populations.

It is expected that in the future, more people will keep their teeth throughout life, providing the periodontal tissues can be maintained. Dental hygienists are skilled in preventive, educational and clinical techniques which focus on maintaining optimal dental health with a particular emphasis on periodontal maintenance. As the Canadian population becomes more affluent and educational levels increase, the demand for preventive dental health services that dental hygienists can provide increases. (Brownstone, 1983) These services are provided by hygienists for reasonable costs in public health and private settings.

Unfortunately, only about fifty percent of the Canadian population regularly seeks dental care. Several

disadvantaged groups are amongst the population that does not. The handicapped and the elderly do not have easy access to dental care; a situation largely due to economic restraints, but also because of licensing regulations. (Federal Working Group, 1986)

In most provinces, regulations prohibit hygienists from working in institutions or private industry without direct supervision by a dentist – a situation which makes the service more costly. Removal of restrictive regulations (as in British Columbia) could improve access to care for these disadvantaged groups by enabling institutions, hospitals and seniors' centres to employ dental hygienists. (Federal Working Group, 1986)

By also increasing the number of dental hygiene positions in public health, greater efforts could be devoted to reaching the populations disadvantaged by socio-economic status and/or geographic location. Presently, caries rates are higher in rural populations and lower socio-economic groups. This disparity could be addressed through employing dental hygienists in rural public health programs, in urban programs and industrial settings, thus facilitating access to care for blue-collar workers. In these settings the dental hygienist could provide initial screening examinations, education, preventive care and referrals as necessary. (Brownstone, 1983)

Increasing the Preventive Effect:

Health education is one method by which health professionals seek to prevent disease. As dental health educators, hygienists attempt to prevent disease by encouraging desirable health behaviours and discouraging or replacing undesirable ones. Strategies and techniques for health education have become highly sophisticated and effective in producing short-term results related to individual and group health practices.

(Brownstone, 1983) Dental health education regimes are carried out:

- to convince patients to act upon recommendations for oral health
 - to convince patients to comply with prescribed preventive regimes
 - to control dental disease
 - to convince patients to accept individual responsibility for preventing dental diseases.
- (Horowitz, 1980)

Dental and allied dental professionals have contributed greatly to the prevention of dental disease through efforts in research, education and dental care over the past several decades. The Dental Hygiene Profession, having developed particular expertise in education, works to encourage desirable behaviours, which enhance overall health. Nevertheless, there is still much work to be done: for example, to convince communities to employ water fluoridation as a cost effective preventive dental health measure, and to educate the public regarding the value of pit and fissure sealants.

An effective public policy on dental health could be created using dental hygiene educators. "The Federal Working Group" predicted this role for the dental hygienist in health promotion. For this to come about, dental hygiene must foster a positive and collaborative approach with dentistry. Resistance from the dental community, who may wish to preserve the status-quo, is a barrier which will have to be

addressed. To work together to adapt traditional relationships is in the best interest of both groups, but more significantly it is essential with respect to addressing the public's interest.

The C.D.H.A. regards the following changes as desirable:

- greater regulatory autonomy for hygienists so they can influence the development of the profession and play a responsible role in its regulation
- more flexible working arrangements to facilitate keeping the greatest possible number in the workforce: for example, part-time and job-sharing arrangements in government and private sector agencies which would make working more attractive to hygienists with family responsibilities
- an increase in dental hygiene numbers and positions could be achieved through acknowledgment of the role of the dental hygienist in improving dental health by allied health and public education
- an increase in opportunities for higher education: The hygienist's skills as researcher, community health worker, educator and administrator would be enhanced accordingly.

Enhancing People's Capacity to Cope:

Through government expansion of the number of positions in community health programs and relaxation of supervision requirements, easy access to dental hygiene care could become a reality. More people would have the opportunity to learn how to achieve and maintain their dental health through self-help, preventive techniques combined with professional care as required.

Dental hygiene has demonstrated willingness to reach out to underserved groups by producing the *Dental Health Guide for Older Adults: "Smile For Life"*, and

collaborating with the Canadian Dental Association on the production of a manual on *Oral Health Care For the Medically Compromised Patient*, which is as yet unpublished.

Dental hygienists have been educated specifically to carry out programs that emphasize the idea of self-responsibility for one's state of health and/or illness. Building on efforts which began in the 1960's and grew in acceptance through the 1970's, dental health care workers at individual, group, community and national levels have made oral health an obtainable goal in the eighties. (Ellen Brownstone, 1983) Dental hygienists today provide preventive education and care in a variety of settings:

Private Practice/Clinical Settings:

In dental offices, hospitals and institutions, the hygienist provides one-on-one, and group education related to positive dental health behaviours which reduce dental disease. The lessons include plaque control techniques and dietary modifications using various strategies such as behaviour modification and inquiry learning.

Community/Public Health Settings:

Many of the hygienists working in public health are engaged in roles other than the traditional "clinician". They may be engaged as supervisors, administrators, program planners or coordinators, researchers, consultants or resource persons. (Brownstone, 1983)

Numbers of public health positions (9% of the workforce) are expected to increase in the future. The results of a survey of dental public health directors which was carried out for the Federal Working Group Report indicated the following trends in

public health which will impact Dental Hygiene:

1. "Public" health settings and practice are becoming more "community" oriented.
2. Additional categories of public health dental hygiene positions, defined by responsibilities, qualifications and salary scale, are being established – beyond the traditional staff level.
3. The range of services provided is being extended to provide for special needs of new target populations such as the elderly and handicapped, in addition to school children.

New preventive strategies for dental diseases, based on an age-related life cycle model are being proposed. Hygienists may become involved with major screening programs to identify, prevent and/or intercept caries, periodontal disease, malocclusion and other dental conditions. Target-directed strategies will require flexibility and movement by professional staff into non-traditional settings such as institutions and community centres. (Johnson, 1982)

The Future Role of Dental Hygiene in Promoting General and Oral Health:

The future role of the dental hygienist will no doubt encompass changes leading to an increase in responsibility for promoting general and oral health. Professor Ellen Brownstone, University of Manitoba points out that:

1. The dental hygiene profession collectively provide greater emphasis on health promotion in addition to their curative and preventive roles (this may require re-orientation at the formal training level).
2. Dental hygienists promote only those oral care methods that scientific studies have shown to

be effective (Horowitz and Frazier, 1981)

3. Dental hygienists will continue to offer organizational leadership in National Dental Health Month. National Dental Health month lends itself to national, provincial and local promotion strategies from mass-media blitzes to one-on-one health instruction. This annual event applies the health promotion concept to many segments of the population including those Canadians who have limited access to dentistry and oral health measures.
4. Dental hygienists, on individual, local group, community or national levels increasingly will promote *nutrition* as it is related to achieving optimum oral and general health. Desirable nutrition practices contribute to the prevention and control of dental caries, periodontal disease and oral cancer.
5. The dental hygiene profession will continue to work toward collaborating with other allied health workers in their efforts to promote health – recognizing and incorporating the role of other health professionals in health promotion. C.D.H.A. has two official representatives on the Department of National Health and Welfare Committee on Health Promotion for Dental Health Professionals, chaired by Ms. Sharon Amer.
6. Dental hygienists will continue to act as role models of health.
7. Dental hygienists will continue to educate people with respect to the consequences of their existing lifestyles, that is educate people with respect to the favorable implications of "good living" rather than the negative effects of poor living.
8. Dental hygienists will practise with tools which provide standardized measures of health risks ("life quantity")

and wellness ("life quality") for patient assessment. (DeFries, et al, 1981)

9. Dental hygienists will continue to recognize and be aware of the role of other resources and programs (other than oral health activities) in the community related to health promotion.
10. Dental hygienists will take an interest in, and attempt to mobilize public concern for "wellness" at the community level, supporting those policies, procedures and activities which promote health.
11. The area of Gerontology is increasing in focus, particularly with respect to health care. From a health promotion perspective, the dental hygiene profession will continue to identify desirable oral health behaviors which seniors can perform rather than emphasizing their deficiencies. A positive approach is essential. (Benson & McDevitt, 1982)
12. The dental hygiene profession will nurture the health promotion movement by continuing to demonstrate the *cost effectiveness* of primary health services.
13. Research (establishment of sound empirical evidence) will continue in dental health promotion. Research interests within the dental hygiene profession are growing.
14. The C.D.H.A. Committee on Community Dental Health is being restructured to reflect current efforts in health promotion. The new name of this standing committee will be Health Promotion, and terms of reference include:
 - Development and support of initiatives for improving the oral health of the public
 - Promotion of public awareness
 - Provision of resources and

dissemination of information on health education and health promotion

- National Dental Health Month activities
- Liaison with other organizations for the purpose of health promotion

Unanswered Questions and Barriers to Dental Health Promotion:

There are many unanswered questions related to *dental health promotion programming*. A few of these include:

1. We know that dental health promotion works if it is sufficiently adapted to the population, the problem and the circumstances in which it is implemented. How will we describe these adaptations?
2. What methods have been established for the systematic planning and evaluation of dental health promotion programs?
3. What types of dental health programs are effective with high risk populations? Why? (Harvey, 1981)

In the community at large there are other barriers to be addressed:

1. Current provincial policies on health may not encourage or facilitate the concept of health promotion.
2. The dental profession and other health professions may wish to maintain the status quo.
3. There is a general lack of knowledge and understanding about wellness.
4. Organization and structure of health programs may curtail activities.
5. The public lacks interest.
6. Many dental and medical training programs continue to

operate primarily on a "disease model" orientation (treatment versus promotion of health).

7. The question of "ethics" must be addressed – does a dental hygienist or any other health professional have the right to impose the concept of health promotion on individuals and make recommendations concerning people's lifestyles?

Conclusion:

The Canadian Dental Hygienists' Association offers this paper as evidence that Dental Hygiene is dedicated to oral and general health promotion.

In the discussion, a greater, more significant role for the dental hygienist in health promotion, and the prevention of dental disease is predicted. Inequities in the present dental health care delivery system are briefly outlined along with the potential of the dental hygienists' role in their reduction.

Some of the barriers to future changes and questions which must be answered are acknowledged. The Dental Hygiene Profession accepts the challenge to play a significant role in promoting health; to seek out and investigate ways of identifying and removing causes of undesirable oral health behaviours. Toward that goal the Profession of Dental Hygiene intends to:

1. play a significant role in strengthening self-care practices through education of the public.
2. encourage self-help by promoting consensus about particular preventive measures amongst socially and economically disadvantaged groups
3. improve access to responsive dental health care which includes screening for referrals.

In these ways, Dental Hygiene will contribute to creating an environment that will improve health for all Canadians! ■

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MECHANICAL PLAQUE CONTROL: ARE CONCEPTS CHANGING?

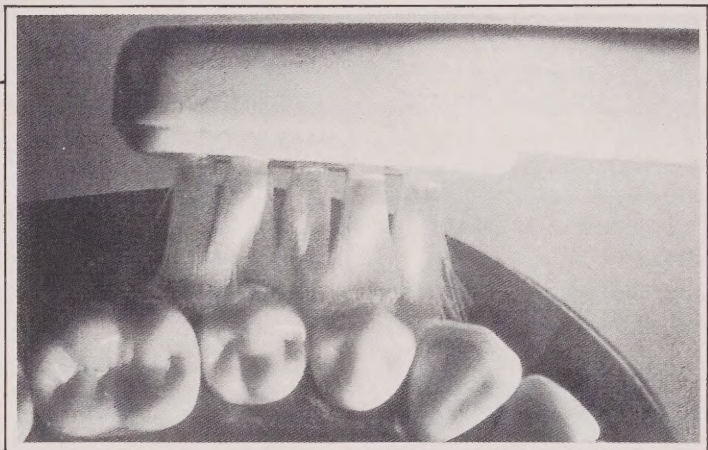
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The role of bacterial plaque in the development of periodontal disease and caries is well established. Similarly, there are well known mechanisms and some less well known mechanisms for preventing dental caries and interfering with periodontal disease. These include mechanical plaque control measures, antimicrobial agents, the alteration of plaque biochemistry, the alteration of tooth surface and oral ecology, systemic agents, as well as behavioral approaches to oral hygiene(1).

This is the first in a series of review articles on dental plaque control measures. This paper is limited to consideration of mechanical oral hygiene practices of the individual. The discussion is organized into 3 sections: 1) toothbrushes, supplemental brushing, methods and frequency; 2) interproximal cleaning aids and 3) specialty devices including oral irrigators and disclosing agents.

Indicators of Effectiveness

National and international workshops (Ann Arbor, 1966(2); Malmo, 1971(3); Chicago, 1977(4); Santa



*Figure 1
Powdered brush with individually rotating tuft design.*

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Monica, 1980(5); and Bethesda, 1984(1)) have addressed the role of mechanical oral hygiene practices in the prevention of periodontal disease.

At the most recent workshop Kornman reconfirmed the relationship between the bacterial composition of plaque, the resistance of the host, and the extent of disease (6). He emphasized that there is no convincing evidence to support a linear relationship between quantity of plaque and extent of oral disease: the amount of plaque which is necessary for disease initiation in one individual may be quite different from that required for producing disease in another individual. Kornman identifies three alternatives for

controlling disease using plaque control measures: 1) eliminate all the plaque; 2) reduce plaque below an individual's threshold of disease; and 3) alter plaque bacterial composition thereby eliminating its pathogenicity. Therefore, in order to be considered effective, Kornman suggests that the product or agent must 1) prevent all clinically detectable plaque; 2) prevent gingivitis, periodontitis and caries; or 3) alter bacterial components essential to disease development. Kornman emphasizes that the reduction of plaque is not sufficient evidence of an agents effectiveness. Unfortunately much of the literature has concerned itself with only plaque reduction and not therapeutic effects. The reader is encouraged to keep this considera-

tion in mind as literature is reviewed.

Toothbrushes

Contradictory results have been reported in studies which compared the effects of different brushes with the same technique, different techniques with the same brush, or combinations of brushes and different technique (2,7). It is difficult to determine the separate influence of the brush, the technique and the user because of the strong interaction between these factors.

The ADA Council on Dental Therapeutics (8) recommends that the type of brush selected depends on the method of toothbrushing that is employed, positioning of the teeth and manipulation skills of the individual.

No scientific evidence yet exists which indicates that one specific toothbrush type and design is superior (7,8). The positioning and density of the bundles of filaments (straight, multitufted, V shaped, serrated) has no significant influence on cleaning efficiency. The shape of the handle (straight, spoon shape, contra angle or others) has limited influence on cleaning efficiency (9). The conflicting results from clinical studies preclude specification of design parameters which might be restrictive to new designs (10).

Most toothbrushes that are available are satisfactory provided that the persons using them are properly instructed and motivated. Based on inference and available research data Frandsen (7) concluded that a "good" adult brush may have the following characteristics: a relatively small (30 mm x 10 mm) head, a wide and long handle, soft nylon bristles (.2 mm in diameter, 10 mm in length), rounded bristle ends and a multitufted straight trimmed brush head.

Powered and manual toothbrushes can be used with equal effectiveness (7,8). Two new types of powered

brushes are receiving attention.

Figure 1 illustrates an individually reciprocally rotating tuft design. Coontz (11) reports a range of 93.5 - 100% and a mean of 98.2% plaque free surfaces in patients using the instrument. In another study, gingivitis scores were reduced by 30% facially, 22% lingually, and by 25% overall by the fourth week of study (12). The second powered brush with a rotating single tuft resembles a professional prophylaxis handpiece. In a clinical trial with this product, patients with open interdental spaces achieved the same level of interdental plaque control with the brush compared to interdental cleansing aids (13).

Powered toothbrushes continue to be particularly useful for the disabled. Frandsen (7) suggests that the less informed the patient about toothbrushing, the more advantageous the powered brush.

Powered brushes are included in the Council on Dental Materials, Instruments, and Equipment Certification and Acceptance Programs. Manual toothbrushes are not included in the ADA formal Acceptance or Certification Program, however, the Council has a recognition program for toothbrushes; recognized products may use the Association logo and the statement that they are professionally recognized as safe and effective on their packaging and advertisements. Available products are published in the Dentist's Desk Reference: Materials, Instruments and Equipment (14) and updated in the Journal of the American Dental Association (15). The Canadian Dental Association limits its acceptance to products containing fluoride.

Toothbrushing Methods

The efficacy of toothbrushes in mechanical plaque control is not related just to toothbrush design but also to, and probably most importantly, the method and frequency with which the person uses

the brush. A survey of the literature has revealed no clinically meaningful differences among the various techniques in reduction of plaque and/or gingival inflammation (7,8). Frandsen (7) suggests that the multitude of available techniques may reflect the fact that no one method has been shown to be superior to others.

It appears that the choice of toothbrushing technique is of minor importance in plaque removal compared to the knowledge, attitude and dexterity of the individual, factors which are more important in achieving effective cleaning (7).

Toothbrush Frequency and Duration

The research on frequency and duration of brushing is inconclusive with regards to caries incidence (7, 16).

For prevention of plaque growth and its maturation and the control of gingivitis, frequency should be determined on an individual basis. Research supports once-a-day plaque control for the prevention of gingivitis and twice a day for patients with pockets (4, 7, 9). Brushing more than twice a day does not appear to confer any added benefit over twice a day brushing (4, 7, 9, 17).

Some more recent clinical trials have focused on duration of brushing. Honkala, et al (18) found that duration produced the strongest effect on plaque removal when they studied children's habitual toothbrushing. Hawkins et al (19) found a relationship between time spent brushing and the degree of oral cleanliness.

Their study concluded that even with highly skilled individuals, a five minute duration was needed to achieve effective plaque removal. In another clinical trial De la Rosa (20) found that less than half of plaque was removed during daily supervised 2 minute brushing. What

become apparent is that toothbrushing is only partially effective in plaque removal.

Supplemental Brushing

Studies have determined that mechanical tongue and palatal debridement can retard the initial rate of plaque formation, total plaque accumulation and oral malodor (21, 22, 23). Both tongue and palatal brushing have been suggested as an integral part of mechanical plaque control. As an alternative to using a toothbrush for tongue cleaning several other devices are available. They include strips of plastic or stainless steel that can be bent into an arc and a pie shaped device with an oval opening of plastic that forms a smooth scraping edge. The cleaner is placed on the dorsal surface of the tongue as far posterior as possible, and pulled forward, pressing lightly against the tongue's surface. Yankell recommends that the palate also be cleaned in a forward sweeping motion (23).

Interproximal Cleaning Aids

Research has shown that brushing alone regardless of the time and method employed will not completely remove interproximal plaque acculation (7, 19, 24). For optimum plaque control toothbrushing must be combined with interproximal cleaning. The interproximal cleaning aids consist of a wide variety of products including dental floss, interproximal tips and brushes.

Dental Floss

The majority of clinical studies of the last decade indicate that dental floss is the most effective interproximal cleaning aid and the most often recommended by the dental profession (25, 26, 27).

Although dental floss is believed to be an invention of the 1970's it

actually was first recommended by L. Parmly in the early 1800's. He wrote in 1819, "It is to be passed through the interstices of the teeth, between their necks and arches of the gums to dislodge that irritating matter which no brush can remove and which is the real source of disease" (28).

Dental floss received more study by C.C. Bass in 1948 who showed that dental floss enable the improvements of gingival health through the reduction of filamentous organisms (29). However the dental profession still ignored the use of dental floss until the work of Arnim and Barkley in the late 1960's and early 1970's (30, 31).

One of the earliest criticisms of dental floss focused on the use of waxed dental floss. This original objection stemmed from the belief that a film of wax would remain on the teeth causing periodontal irritation. This view has been refuted, with the analysis of clinical data indicating that there is no disadvantage in using waxed dental floss. Both waxed and unwaxed dental floss has been shown to perform equally well in their plaque removing ability (25, 26, 32).

Another issue has focused on the safety of using dental floss in children with healthy gingiva. It has

been suggested that the use of dental floss in healthy gingiva will have deteriorating effects on the junctional epithelium, with the junctional epithelium being torn during flossing. Waerhaug (33) examined this concern and found no objections to children with healthy gingiva using dental floss. He concluded that while there may be a disruption to the junctional epithelium it is not of pathological concern but he also concluded generally there is no plaque to remove subgingivally in these individuals. Until research provides further clarification, it is generally advised that children's flossing efforts be closely supervised.

Dental floss has long been believed to be an effective adjunct to toothbrushing in the prevention of dental

Figure 3
Variable diameter dental floss

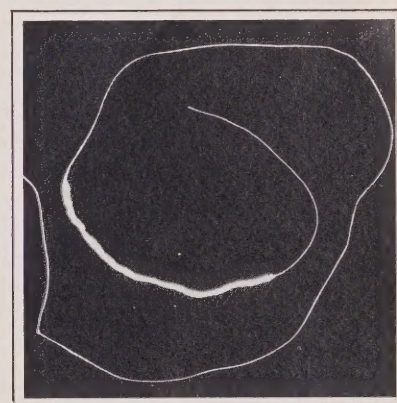
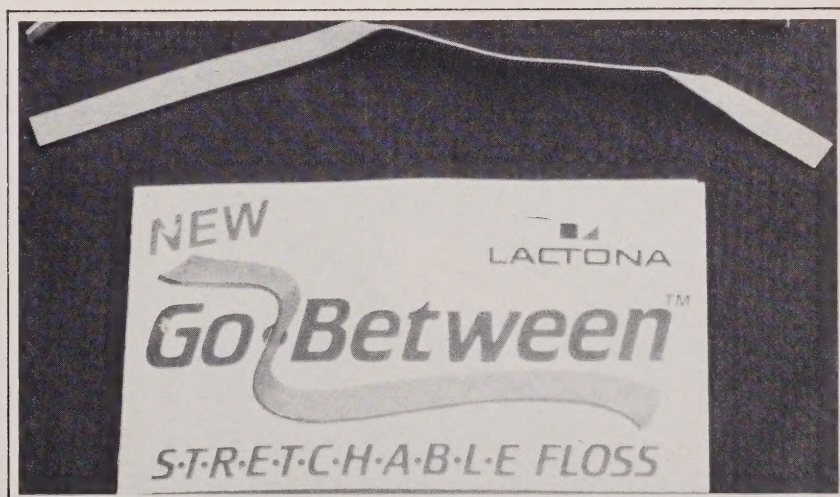


Figure 2
Elastomeric dental floss



caries. To date there is not a perponderance of literature to support this view. A recent study (34) suggests that dental flossing only reduces the incidence of proximal caries in grade one children when the flossing was performed by a dental professional. When the study group used dental floss independently no reduction was noted. However whether this is true for all ages has not been substantiated.

In other studies it was also found that while the severity of gingivitis was reduced the incidence of dental caries was not significantly lowered (35, 36, 37). Therefore it appears that the effectiveness of caries reduction by the use of dental floss still requires further investigation.

Two new dental floss products recently introduced to the Canadian market are the elastomeric dental floss and the variable diameter floss. As illustrated in

Figure 2 the elastomeric floss resembles rubberized dental tape. In a preliminary study no significant difference was found in the plaque removing ability between the elastomeric and standard dental floss (38). When the participants were surveyed they responded favorably and believed that they were able to clean their teeth more rapidly with this new dental floss. Another interesting variation of dental floss is the variable diameter dental floss (**Figure 3**). It is packaged in pre-cut lengths and has three design features within each strand, stiffened end to facilitate insertion, a widened yarn-type portion and a section of regular dental floss. Several recent studies have found variable diameter floss to be more effective than regular floss in removing interproximal plaque (39, 40).

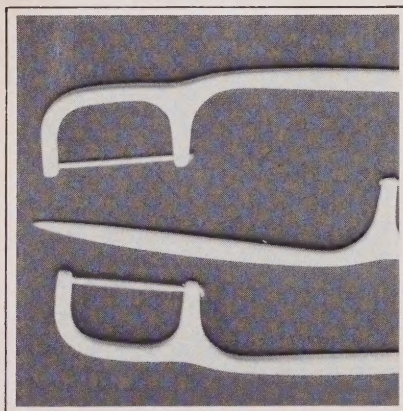
Dental Floss Threader

Individuals with fixed prosthesis, splinted teeth or orthodontic appliances, who need a floss threader for interproximal insertion, respond favorably to a stiffened end incorporated into the variable diameter design. However, for those patients who wish to use the regular dental floss, several other floss threader designs are available. These usually consist of either plastic or wire with an eyelet opening for threading the floss. Few clinical research studies (41) have been conducted but patient complaints are often directed against those types which are very rigid or have a small needle-like eyelet opening making it difficult to thread the floss through.

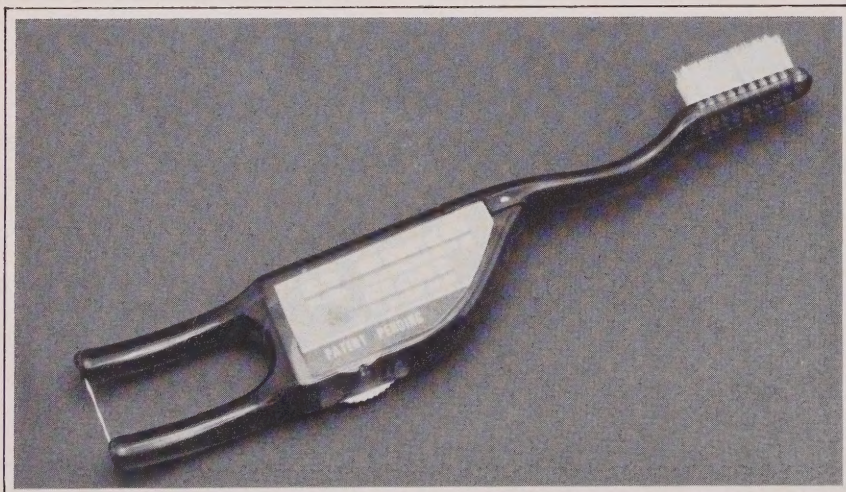
Dental Floss Holder

For patients with poor manual dexterity, handicapped individuals or those who believe hand held floss is "too much trouble" many sizes and shapes of floss holding devices are available. These devices have been shown to be as effective as hand-held floss. Mulligan et al (42) compared seven types of floss-holding devices and found that the most effective design had a large handle, deep threading grooves and a secure knob to hold the floss taut to prevent slipping. Recently introduced to the Canadian market are two floss holder products; a toothbrush and floss holder combination (**Figure 4**) and disposable floss aids (**Figure 5**).

The disposable floss aids are small, easily portable and require no threading by the patient. The toothbrush and floss holder unit is an innovative device, making it easy and convenient for the patient to brush and floss. To date no clinical studies have been completed but patient acceptance of these products seems favorable.



*Figure 5
Disposable floss aids*



*Figure 4
Combined toothbrush and dental
floss holder*

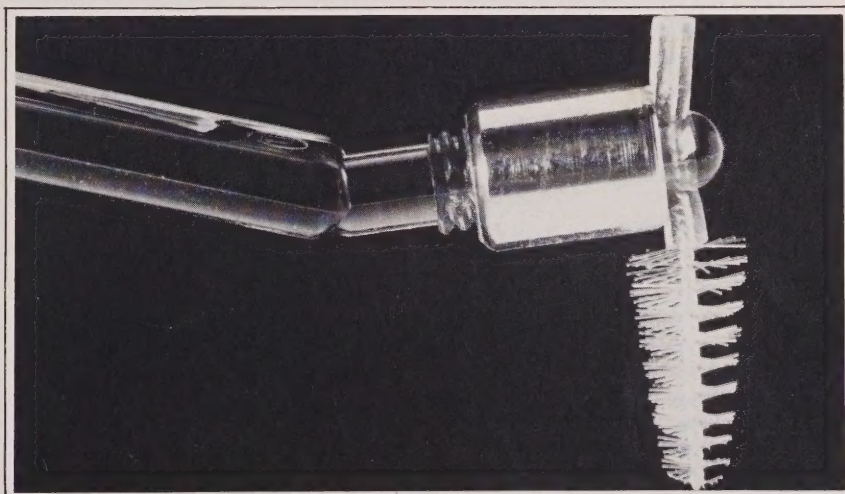
Interproximal Tips & Brushes

There are a variety of configurations of interdental tips. These range from wood to plastic to rubber. The most popular wood tip designs are the triangular wedge or the toothpick mounted in an angled handle.

The interdental brushes are small shaped bristle brushes which are usually mounted in a handle and come in several cone configurations. (Figure 6).

Bergenholtz et al (43, 44) found that the plaque removing ability of a toothpick is more dependent on shape than on materials used for manufacturing. They concluded that the triangular wedge with low surface hardness and high strength values were preferred for interproximal cleaning. While the majority of clinical studies focused on supragingival plaque removal, Walsh and Hechman (45) compared the Perio aid, dental floss and toothbrush on subgingival plaque removal. There was no significant difference between the final plaque scores of the groups. However, in the toothbrush only group, there was a significant increase in the bleeding indices and gingival health declined in the toothbrush only group.

Figure 6
Interdental Brush



Gjerme and Flotra (46) evaluated the effectiveness of the rubber cone stimulator and the interproximal brush and found that the interproximal brush was more effective in reducing proximal plaque but neither achieved complete plaque removal. Another study reported that the interproximal brushes provided superior cleaning results when compared to either toothpicks or dental floss for patients with large embrasure spaces (47).

Patients are best advised to use interdental tips and brushes to reduce plaque accumulation in those areas where there are flattened interdental tissues, root concavities or furcation areas which are inaccessible by floss.

Specialty Devices Oral Irrigation

For many years, various water irrigating devices have been recommended as supplements to the established methods of mechanical plaque control (48).

Many clinical investigations have tried to determine the value of the water irrigating device as an oral hygiene aid. The findings have varied greatly, however the majority have shown that its ability to remove adherent plaque is insignificant or non-existent (49, 50, 51, 52). They are most effective for cleaning nonadherent bacteria and debris from inaccessible areas

of the oral cavity, particularly around orthodontic appliances and fixed prosthesis. If oral irrigators are to be recommended it should be an adjunct to brushing and flossing and care must be taken to prevent the jet spray from forcing microorganisms deep into the gingival sulcus, pocket, or surrounding tissue (53). The water irrigating devices are being evaluated as a means of conveying different antiseptic medicaments to the oral cavity, often in conjunction with periodontal surgery.

Disclosing Agents

Disclosing agents have been used in dentistry for many years. These solutions and tablets are capable of staining bacterial deposits or the surface of the teeth and are excellent oral hygiene aids providing the clinician and patient with a tool to evaluate plaque removal. Recent concern has been raised about the use of red dye F.D.&C. #3 (erythrosine) as a possible carcinogenic agent. The position of the Health Protection Branch, Health and Welfare Canada remains that there is no conclusive evidence to prohibit their use. However, they are conducting an extensive clinical toxicological study to further investigate the effects of erythrosine. In the meantime, they have asked manufacturers to incorporate the following information into their product literature: 1) The products are not recommended for use in children under the age of 6. 2) The products should not be swallowed. 3) The products are intended to be used only occasionally (once or twice per week) in the period during which proper brushing technique is being learned. Since this issue was raised several companies have reformulated their products and are using a red dye F.D.&C. #28.

There is re-interest in the use of sodium fluorescein (F.D.&C. yellow #8). It is a colorless solution which is only visible when used with a properly filtered light source.

Conclusion

Personal mechanical oral hygiene practices continue to play a major role in the control of oral diseases. The literature substantiates that there is no one best regimen for all patients. There is evidence that it is not the design of toothbrushes and other interproximal and specialty devices which contributes to effectiveness as much as the knowledge, ability, and motivation of the individual. The most technologically advanced mechanical device will not result in significant improvements in caries and periodontal diseases without the active role of the individual. Thus, the impetus must be on developing strategies to motivate the public to use available techniques more effectively and on mechanisms that do not require patient compliance.

In subsequent articles the major antimicrobial agents for controlling plaque diseases will be reviewed. ■

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Oral Histology

D.V. Provenza and W. Seibel

Lea & Febiger

Philadelphia, P.A.

1986, 485 pages \$56.50

This is the second edition of a book which first appeared in 1964. Several changes have been made in the subject matter covered compared with the earlier edition and all of these changes have been for the better.

The first section of the book covers cytology, the cell cycle, patterns of inheritance, the histology of the basic tissues and general and facial embryology. The remainder of the book covers the material that it usually considered to be classical oral histology. It includes chapters on the development of teeth, enamel, dentin, pulp, cementum, periodontal ligament, oral mucosa, salivary glands, the tongue, nasal cavity and the temporomandibular joint.

The material is all well presented and up-to-date and there is a very good coverage of recent ultrastructural studies and their significance to clinical dentistry. The book is heavily illustrated and contains many photomicrographs and electron micrographs. Most of the photographs are well produced and they adequately supplement the text.

As with any textbook with multiple contributors, there is some variation in the quality of the chapters. Some of the chapters are excellent while even the weakest one – the one on the periodontal ligament is good.

I consider that without a doubt, this is the best textbook presently available on Oral Histology. In the preface, the authors state that they hope that the book will be found useful by both students and practitioners – there is not doubt that they have succeeded. This book will be very useful to anyone who is

interested in Oral Histology and its clinical correlations and I would recommend it highly.

Reviewed by:

P.B. Innes, B.D.S., M.D.S., D.D.S.

Dean,

College of Dentistry

University of Saskatchewan



Geboy M.J.

Communication and Behavioral Management in Dentistry.

Williams and Wilkins.

165 pgs. 1985 \$17.95 U.S.

(\$25.00 Can. Approx.)

With so much emphasis today placed on the technical delivery of dentistry we must not lose sight that the provision of oral health care is partially an interpersonal process. It has been said that the behavioral skills of a dentist has more to do with the quality of his dentistry than any other single factor. This text focuses on the delivery of dental care from the interpersonal approach.

Author Micheal J. Geboy and contributing authors T.C. Muzzio and A.M. Stark have written a well organized text designed to meet the behavioral needs of the dentist. The book can be roughly divided into 2 parts; Chapters 1 – 4 provide an overview on basic concepts of communication, including principles of active and non verbal communication as well as the art of language and listening. Of particular interest in Chapter 2 is a comprehensive discussion of question design and delivery techniques.

In chapters 5 to 8 the primary focus is on specific patient situations including as anxiety management, patient compliance, and the geriatric and handicapped patient.

The scope of Chapter 6, entitled Patient Adherence and Behavior Change, includes a discussion of the issues of nonadherence, skill development and self management skill assessment. Of particular interest in this chapter is the discussion of self management skill assessment in which the author describes a systematic approach that the patient can be taught in order to be more effective in carrying out oral hygiene activities. This section will allow clinicians to evaluate their strategies for effective patient motivation.

Chapters 7 and 8 discuss the process of aging, the needs of the handicapped, and strategies to accommodate to the impaired functioning of these patient groups.

The primary focus of the book is with the dentist-patient relationship, however the principles discussed are equally applicable to all members of the dental team. The specific topics are addressed in a clear, easy to follow fashion, with each of the chapters providing useful examples to enable the discussion to be more meaningful to the reader.

A recommendation for the author would be to include communication exercises to enable more active participation on the part of the reader. This minor shortcoming does not however change the fact that this text is a useful resource text for both the student and practicing clinician.

Reviewed by Janice F.L. Pimlott,

Dip.D.H., B.Sc.D, M.Sc.

Assistant Professor

Division of Dental Hygiene

University of Alberta



Review of Dental Hygiene: Questions and Answers, 3rd edition

Pauline F. Steele, B.Sc., R.D.H.,
B.S. (Educ.), M.A.
Lea and Febiger,
600 Washington Square,
Philadelphia, Pennsylvania
19106
280 pgs. with 25 illustrations
\$24.50

As the title implies, the aim of this textbook is to provide dental hygiene professionals with a systematic review of the latest in theory and clinical practice through the use of a question and answer format. The chapters are written by a host of distinguished contributors and each is an up-to-date treatise of contemporary dental hygiene topics. Important topics covered include: oral pathology; microbiology; oral medicine; general anatomy; dental pharmacology; nutrition; clinical dental hygiene; oral anatomy; oral radiology; biomaterials; community dental health; and jurisprudence and ethics. For the most part, the questions are well composed and conform to the style of state and national licensing examinations. The book accomplishes its purpose well and the student is able to refresh or gain knowledge in problem areas by making use of the suggested references.

There are some minor criticisms, however. The chapters on nutrition, community dental health, jurisprudence and ethics reflect the United States standards and guidelines. The chapter on oral anatomy refers to the Universal code of tooth numbering which is not commonly used in Canada. Perhaps the value of the questions could be enhanced by providing explanations why the correct answers are right, and the incorrect answers are wrong. On the whole, however, this textbook

will be a useful reference source to the student of dental hygiene, the graduate dental hygienist, and the dental hygiene educator.

*Reviewed by Evie F. Jesin, Dip.
Dent. Hyg., B.Sc., E.D.D.H.
Teaching Master, George Brown
College, Toronto, Ontario.*



Clinical Pharmacology in Dentistry

R.A. Cawson, M.D. and
R.G. Spector, M.D.
4th Edition, Churchill
Livingstone, 1985
378 pages, Appendices,
Illustrations, \$21.75 (Can.)

The fourth edition of *Clinical Pharmacology in Dentistry* is a result of the combined efforts of Dr. R.A. Cawson, M.D., Professor of Oral Medicine and Pathology, University of London and Dr. R.G. Spector, M.D., Professor of Applied Pharmacology, Guy's Hospital Medical School, London, England.

The authors' intent is to provide a basic text for the dental student, as well as a reference text to those already in practice. As the authors state in the Preface, the title is probably ill-chosen, as the basis for the text is more medical than dental.

The initial chapters cover the generalized topics of drug metabolism, management of infections and the Misuse of Drugs Act. These chapters are brief, providing only cursory information. The chapter pertaining to the Misuse of Drugs Act is based on the "Dental Practitioner's Formulary" under the conditions of the British National Health Service. This is a shortcoming in terms of its relevance to Canadian practitioners.

Subsequent chapters deal with more specific concerns, from the affect of drugs on various body systems to emergencies in the dental office. Only a few chapters relate specifically to dental interests, such as the chapter covering antiseptics, anti-caries agents, and related drugs used in routine dentistry. This chapter provides the pros and cons of the available antiseptic products, fluoride vehicles and those drugs used in endodontic and oral surgery procedures.

The most applicable chapter pertains to the toxic effect of drugs. Points covered in this chapter include the adverse reaction to drugs given for dental purposes, drugs which affect the response to dental surgery, and the interaction between drugs taken for medical purposes and those prescribed for dental reasons.

The appendices deal with antibiotic prophylaxis of infective endocarditis and list those high-risk groups for Hepatitis B and Acquired Immune Deficiency Syndrome.

The authors' use of diagrams and charts aid the synthesis of essential principals. Diagrams frequently depict drug metabolism within a particular system, while the charts list special properties, side effects, and the clinical usefulness of various drug groups.

The "suggested further reading list" at the end of each chapter, consisting of recent review articles, is a definite asset for those concepts requiring further explanation.

A major limitation of this text is the broad organization of topic headings and the vast amount of material encompassed under each, making it difficult to follow. The text is not written for ease of understanding and information is often placed under the inappropriate topic heading. The authors are also inconsistent in their use of summaries, using them in only 3 out of 19 chapters. The summaries that are available provide an often

needed review of key concepts that are difficult to glean from the body of the chapter.

The text, written with dentistry in mind, makes a gallant attempt at covering a broad spectrum of information, but fails to rise to the occasion through the use of difficult text and an overindulgence in the medical vs. the dental aspect. There are other texts available for the dental hygienist that are more applicable and one should look to these for an understanding of pharmacology as it relates to dental hygiene.

*Reviewed by Patricia L. Dray,
B.Sc.D.H.
Instructor, Department of Dental
Health Care, Division of Dental
Hygiene, University of Alberta.*



Case Reasoning for Clinical Dental Hygiene

D.J. Wootton, K.S. Hamidiani,
1st Edition
Lea & Febiger, 1986,
201 pages, \$16.75

"The authors believe that studying and learning in these [dental] fields can be more interesting and ultimately easier if the scientific rationale can be related and incorporated into practical application and routinely applied in patient care."

Case Reasoning for Clinical Dental Hygiene is an interesting book that can be used in many different ways; as a catalyst, as a test instrument, as a resource, even as a study aid. The concept of using case studies to simulate real life situations and encourage the transfer of theoretical knowledge to clinical practice has a lot of merit.

This text can be used as a catalyst to spark class discussion, debate,

and thought. Some questions and answers featured in Wootton & Hamidiani's book are detailed enough that they will challenge even the brightest student while other situations are routine in nature and will therefore be appropriate for all students.

To use this text as a test instrument is very convenient as the format lends itself well to that purpose with little adaptation required. As a reference text it features a unique combination of significant subject areas within each case. Students and graduates alike could put the text to good use, using it to test their own understanding of the broad spectrum of knowledge required by dental hygienists.

The book *Case Reasoning for Clinical Dental Hygiene* discusses thoroughly, situations typical of most practices and as it lends itself to so many uses, it could well be included in the library collection of every dental hygiene school.

*Reivewed by
Maxine Borowko, S.D.T., R.D.H.
Instructor
Wascana Institute
Regina, Sask.*



Stress Management for the Dental Team

James M. George, Charles L.
Milone, Marvin J. Block,
William G. Hollister.
Lea & Febiger, 1986
\$36.50 Canadian, 283 pp.

Drs. James M. George, Charles L. Milone, Marvin J. Block, and William G. Hollister, of the University of North Carolina at Chapel Hill, have teamed up to produce a very useful and readable book. Their combined efforts, drawing on their backgrounds in Psychology, Dentistry, and Medicine, have resulted in a very educative and

practical approach to stress management for dental health professionals, whether the reader is a receptionist, assistant, hygienist or dentist.

The writers stated goal is to help readers learn to cope with stress. To achieve this, they structured their book into two broad sections. Section one looks at the general nature of stress, while section two takes the reader through stress in the dental office. An epilogue is provided to outline how one could build a stress control program. In addition, each chapter ends with a summary and reference list of their sources.

Section one, which describes stress and its consequences, coping methods, and lifestyle and family implications, is excellent. Its excellence stems from the fact that the writers show how stress management is a self-responsibility and not something that can be done for us. The writers encourage a balanced and moderate approach to all aspects of life, not just work, but family and leisure too. Their emphasis on the notion of balance and moderation in one's whole life is clearly evident for they devoted one of their largest chapters, "Lifestyle", to this topic.

Section two, which looks at stress in the dental practise, patient stress, stress in the team-patient relations, stressors and solutions in working together, and the use of systems and time management to lower and/or cope with dental office stress, is also good. The writers provide the necessary information to become knowledgeable about stress as it relates to most, if not all aspects of dental practice and dental professionals. Beyond this they provide useful information on how to change and cope with specific stressors. For example, when helping patients deal with their anxieties related to dental work, good communication with patients, removing fear triggers, using positive suggestions, teaching relaxation techniques, and

using desensitization of hypnosis are suggested.

The writers are prudent in their suggestion that patients experiencing severe anxiety should be referred for counselling, how-

ever, more work of this nature could be done by dental health professionals if they had more exposure to the various techniques of anxiety reduction. For example,

the text of a progressive relaxation exercise could have been included in this book so that dental professionals could teach it to patients for self use, or use it with patients prior to dental treatment. Furthermore, since the writers state (page 75) that the Benson "relaxation response" method is very difficult for many people to find easily beneficial, all the more reason to include more information or sources of information on relaxation exercises.

I also believe that more information could have been included about effective communication in reducing stress with patients and team members, even though an adequate introduction of this is provided in chapter eight, "Working Together". Effective communication really is a preventative measure in stress control and more attention to it would have been beneficial.

Another point about communication in the text raises an area of concern for me. In the chapter on "Team-Patient Interactions", a discussion of respect as a core condition of communication ends with a suggested dialogue between patient and dentist (page 154). The dentist is trying to help the patient see the importance of replacing missing teeth. I believe the dialogue between the two characters goes on far too long, and in fact, shows the dentist's disrespect, not respect, for the patient's choices and limitations in her life. I would suggest that respect is shown when the dentist does not push the patient as s/he did in that example.

In spite of these very few concerns, I regard this book as an excellent model for stress reduction in dental practice, and as well, for educational uses in all dental training programs.

Reviewed by:
Paula McDonald, B.A., M.Ed.
Counsellor, Faculty of Dentistry
University of Manitoba

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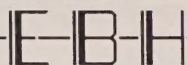
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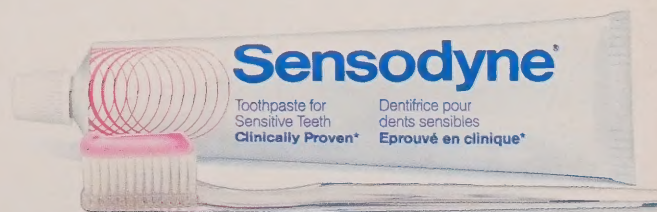
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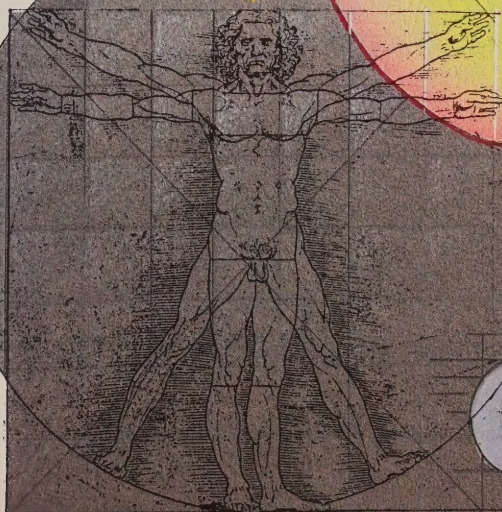
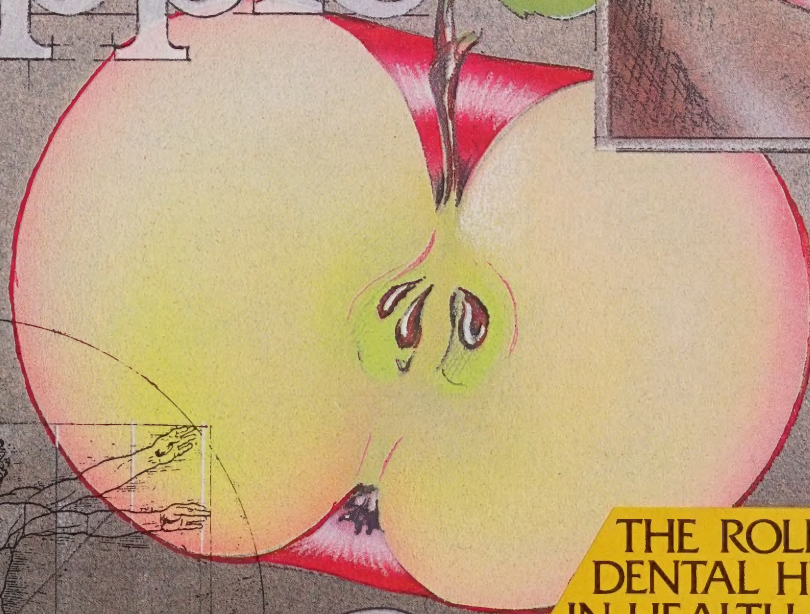
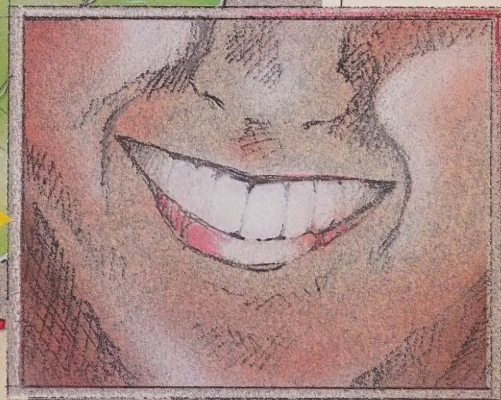
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volume 21, no. 4

December 1987 décembre

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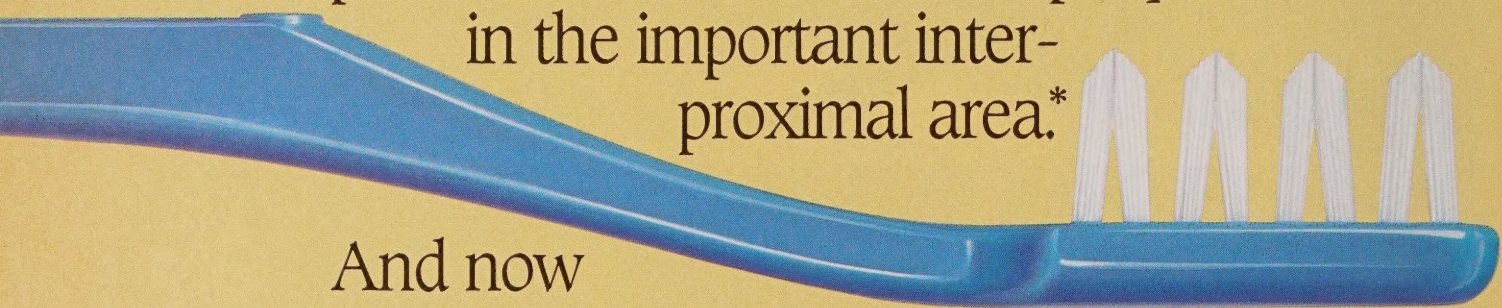


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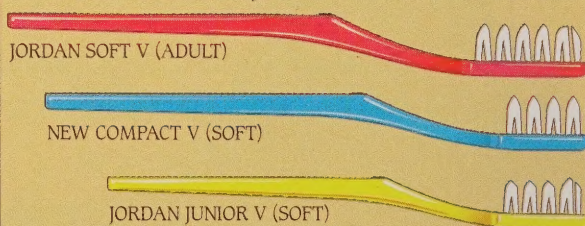


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"Access to interproximal tooth surfaces by different bristle designs and stiffness of toothbrushes." Per Nygaard-Ostby et al., Jordan, Oslo, Scand. J. Dent. Res. 1979.

"An in vitro study of the relative effectiveness of toothbrush cleaning/coverage." Sam. L. Yankell, University of Pennsylvania, J. Dent. Res. 1979.
"Role of brushing technique and toothbrush design in plaque removal." Axel Bergenholz et al., University of Umea, Scand. J. Dent. Res. 1984.

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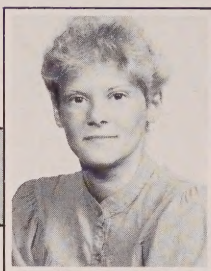
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PRESIDENT'S MESSAGE

Ellen Brownstone
B.A., R.D.H., M.Ed



I am pleased to have the opportunity to serve C.D.H.A. as President. All Officers of our Association give of their time and energy to contribute to the achievement of our Mission – serving the preventive dental needs of the Canadian public and serving the professional needs of our members.

As President, I have the responsibilities of providing leadership, contributing to the future directions of C.D.H.A., acting as an official representative of the Association in support of its policies and activities, and in some manner contribute to the professional growth and development of Dental Hygiene.

As the Canadian Dental Hygienists' Association approaches its 25th year of operation, Canadian dental hygienists can take pride in the relatively short period of time in which dental hygienists have come to be recognized as primary providers of preventive dental care. Our professional contributions to the total health care of the public are steadily increasing in importance.

As the dental needs of the public are changing and the numbers of senior citizens within our population are increasing, the dental hygienist's role will expand. Dental hygienists, as oral health specialists, will increasingly provide dental hygiene care in a variety of

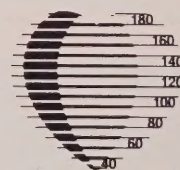
emerging work settings such as institutions, hospitals and chronic care facilities. Further, as "health promotion" is now visible as a basic philosophy of the federal government, dental hygiene's position in the Canadian health care system as dental health care providers will strengthen.

The last decade in dental hygiene's professional growth and development has been marked by some landmark events: a federally initiated working group report on the practice of dental hygiene in Canada, the first-ever conference on dental hygiene research, the establishment of clinical practice standards in dental hygiene, a nation-wide census survey, achievement of self-regulation for more than fifty percent of all Canadian hygienists and, several C.D.H.A. submissions to government bodies providing recommendations for the improvement of the oral health status of the public and enunciating dental hygiene's position in the Canadian health care delivery system.

Over the 1987-88 term, the Canadian Dental Hygienists' Association will focus on the following projects: the national dental hygiene survey, marketing and public relations, a national dental hygiene certification process, and member services.

Although the outcomes and benefits of these activities and projects may not be immediately realized, they will impact on each member of C.D.H.A. Through the individual and collective efforts of the Canadian Dental Hygienists' Association Board of Directors, Executive Council, Official Representatives, employees and its members, our Association activities will flourish.

Through future journal issues in 1987-88, I will keep members informed of current and future C.D.H.A. events and actions. Much success this term to all those who work for C.D.H.A. ■



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Dental Hygiene Issues in United States

Irene R. Woodall R.D.H., Ph.D.

This editorial reflects an American viewpoint and does not represent C.D.H.A.'s position.

There are several key issues affecting dental hygiene in the United States that you should know about. They are important because they can actually reshape or redefine dental hygiene depending upon how we hygienists choose to react. We can make them opportunities for growth and development. Or we can let them be

our undoing. Some of these issues may already be topics of debate in Canada. Others may suggest the future for you or be issues you have already resolved. In any case, I am grateful for the opportunity to discuss them with you.

A critically important issue in the States is that of the decreasing caries rate. Statistics suggest that between 35-42% of people seventeen years and younger have never experienced decay. When looking into today's college students' mouths, there is no row of restorations marking where the

occlusal surfaces used to be. There are, typically, untouched white teeth. It poses an interesting dilemma for dentists. They are grateful for the health for their patients, but bemoaning the empty appointment book pages.

This is compounded by the fact that the prospect of national health insurance during the 1970s resulted in a great manpower boom that graduated thousands of dentists, decreasing the population to dentist ratio, particularly in large cities. National health insurance never happened. So despite the increased numbers of people who have economic access to care because of recently won union benefits, many dentists are witnessing a heightening of competition between dentists for patients. New dentists are not as welcome in many cities. Those who do start out

Even After Brushing
With Fluoride,
Teeth Need
The Fluoride
In Listermint.

Here's Clinical
Evidence.



fresh often find the going difficult. There are many bankruptcies.

The competition has spilled over to the relationship between dentists and hygienists. During the economic recession of the early 1980s in industrialized sections, patients postponed restorative care while they were laid off work and had no dental insurance. They often, however, continued their dental hygiene care. It was painful for dentists to see the hygienist busily working while the restorative operatories were relatively silent. Many dentists decided that they would learn to like practicing dental hygiene themselves and either dismissed their hapless hygienists or lowered their wages. This followed an approximate six-year period of wage stagnation for hygienists when our increase in numbers made us less scarce. Increased supply decreased wages overall.

Hygienists became incensed. Many left the profession choosing alternative careers that had greater security and the potential for increasing wages and opportunities.

Others decided to fight for the right to work without dental supervision. They stated that restricting their freedom to work in competition with a dentist who had not valued their contribution to the practice was an unfair restraint of trade. They cited their education and licensure. Some said it was a women's issue – and that the restraint was largely a hold over from ancient attitudes toward women workers.

Independent practice is still the major issue in the United States. So far only Colorado has won the right for hygienists to practice without supervision in a dental hygiene office setting. Several other states

permit this type of practice only in community settings such as schools and nursing homes. It poses a major threat to dentists who often rely upon dental hygiene income for the well-being of their practices. They do not want to see dental hygienists free to compete in the market place. The arguments the public hears from dentists focus on our lack of ability to screen for medical complications or to diagnose. Dental hygienists in some states are working to prove that hygienists are capable of practicing competently without a supervising dentist. There is a research project in California studying that issue.

An issue that makes real movement for dental hygiene difficult is our inability to achieve solidarity. Hygienists are still struggling with definitions of issues and failing to focus on the whole picture. If we could consolidate our strength we

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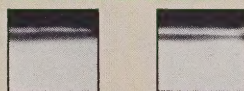
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YOU AND LISTERMINT WITH FLUORIDE.

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**neutral pH, 0.22 mg/mL of sodium fluoride (100 ppm fluoride ion) 1. Torell, P.; Ericsson, Y.: Int'l workshop on fl/dental caries red. (1974). 2. Ripa, L.W. JADA 102:477-481 (1981). 3. Birkeland, J.M.; Torell, P. Caries Res. 12 (Suppl 1), 38-51 (1978). 4. Driscoll, W.S.; Swango, P.A.; Horowitz, A.M.; Kingman, A. JADA 105:1010-1013 (1982). 5. Koulourides, T. Data on file Warner-Lambert Canada Inc. 1985.

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could probably define for ourselves what we will be in five years or ten years. We could make it happen. The problem seems to be that we have never defined our culture.

This key point was raised at a research meeting in Iowa this past summer. We were struggling to define the body of knowledge that dental hygiene should claim as its own for purposes of research projects. What hit us like a brick is that we have never really stated what our culture is - what makes us special. We have not stated what makes us different from dentistry. Are we really just auxiliaries who are delegated pieces of dentistry? Or is there something about us that makes what we do different from how a dentist does the skill, procedure, or activity? Dentists may be legally permitted to perform "dental hygiene", but when they do it, are they somehow functioning as a dentist trying to do dental hygiene, but not doing very well? What makes it important for the public to seek out a dental hygienist for dental hygiene care? Answering this challenge is generating some real excitement in the United States? I would love to compare your answers to those questions with ours!

How do we transmit our culture and our message of how important we are to the public? They should know to ask for us. They should know to expect that they will receive dental hygiene care from a licensed dental hygienist. We have to get into public relations.

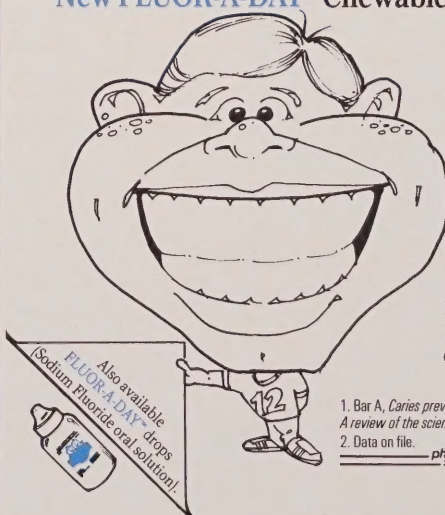
Another related issue is how we can translate our notion of our culture into defining a scope of research for our profession. We need to begin doing our own research on dental hygiene issues rather than relying upon dentists who are interested from a dental perspective. We need to develop a body of knowledge based on sound research that defines how best to practice dental hygiene.

We also are going to need to attend to the healing process that will be necessary for dentistry and dental hygiene to work together. Organized dentistry, at least, feels it is at war with us. While this does not seem to reflect the typical dentist who works with a dental hygienist, there will no doubt be a period of time where misunderstandings, supposed victories, and harsh words will need to be dealt with and forgotten. We need to work closely with dentists to provide comprehensive care. We need to cooperate and to value each other. Once we have our own self-concept in order and have decided where we fit in, we may be able to attend to resolving this need.

These are exciting times. Periodontal disease has come into its own. The public knows about it and is asking us about it. Dentistry is eyeing dental hygiene care as a way to move more periodontal initial therapy into the general practice. We are establishing ourselves as indispensable in the eyes of the consumer and maybe even in the eyes of some dentists. These issues can guide us to a major improvement in the scope and importance of dental hygiene care if we respond with vigor and enthusiasm. We'll keep you posted! ■

Irene Woodall will be the keynote speaker at the C.D.H.A. Convention in Edmonton, Alberta, August 21-24, 1988. Dr. Woodall will be speaking on "Revitalizing Your Dental Hygiene Career".

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chewable tablets
now sweetened with Xylitol.

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At the annual Board of Directors meeting, in June 1987, a resolution was passed to investigate the feasibility of purchasing office space for the C.D.H.A. Central Office. Executive Council would appreciate the input of the members before proceeding in this venture. The purpose of this article is to familiarize you with the issues involved in making this decision. Your opinions are valued; please respond.

In this issue, the audited Financial Statements of the C.D.H.A. for the fiscal year ended April 30, 1987, are presented. Substantially all revenues have been collected by April 30, with six months of expenditures remaining until membership renewal.

The C.D.H.A. enjoys tax-free status as an incorporated non-profit organization. Wise financial management techniques dictate the maintenance of a reserve fund. For the current fiscal period, ending April 30, 1988, an amount of \$66,500 has been estimated as the level of members' equity or "reserve" fund. This fund represents the pool of resources which are not needed to meet the current commitments of the organization. Balanced budgeting prevents the erosion of the reserves over time.

Why should a non-profit association maintain reserves? A minimal level of "operating" reserves is critical for any on-going operation. You, as a member, have entrusted this association, to be your national representative for dental hygiene matters. This is a long-term commitment, which cannot be jeopardized by short-term cash flow interruptions. An adequate level of operating reserves prevents a threat to continuation of services from outside forces (such as postal interruptions). At

least the value of two months average operating expenditures should be maintained for this purpose. The choice of investment instrument must ensure liquidity, minimal risk and reasonable rate of return. Short term government issue is recommended. At present, C.D.H.A. invests in thirty to ninety day federal government treasury bills.

Should a non-profit organization maintain long-term reserves? There are compelling reasons to safeguard a portion of members' equity. This ensures the future continuation of the organization. Unforeseen crisis situations can be dealt with effectively. If a serious interruption of revenue sources develops, the long term viability of the organization can be assessed. The availability of a reserve fund, assures that the range of options is not unduly constrained. An important part of the C.D.H.A. mandate is to preserve the quality of the future of dental hygiene in Canada.

Long-term reserves are not intended to be used for current projects and normal operations. The liquidity (ease of access) is not an important factor in choosing the form of the asset. Other associations have chosen

to own real estate, held in the form of ownership of their national office space. This not only preserves members' equity, but can have financial advantages in both the short and long term. Additional space could be available for meetings, potential rental income, investment opportunities and fixing the costs of monthly payments are possible advantages.

Using the above analysis, an amount of approximately \$40,000 could immediately be targetted to this goal. It would be advantageous to mortgage as little as possible. Until such time as the market conditions and financial viability were favourable, a building fund would be maintained, with a portion of each budget appropriated to this fund. The final decision would be made by the Board of Directors with full information on the specific financial considerations.

A survey form is included to allow input on this important decision from the members. The Board of Directors appreciates your consideration of this question. Thank you for your interest. The results of the survey will be announced in future issues of *Probe*. ■

BUILDING PURCHASE SURVEY

C.D.H.A. Board of Directors should consider the purchase of office space in Ottawa for Central Office

- Strongly Agree ☐
 Agree ☐
 Disagree ☐
 Strongly Disagree ☐
 Comments:

from the Editor

Dear Colleague,

The C.D.H.A. Journal has undergone significant changes in the last year. We have a new name, new format, new layout and new editorial staff. Central Office is responsible for production. Anna Edels (Studio Anagram) designs the cover, lays out the content and draws the diagrams. The Editor, with direction from Executive Council, determines the content. You (among others) supply the content!

The editorial staff welcomes feedback from our readers. One of our goals this year was to strike a balance between features and scientific articles. How are we doing? Are there specific topics you would like to see in your journal? Are there regular items, such as self-assessment tests that you expect to find in each issue? Are the book reviews of value?

The Letter to the Editor column has not been printed lately due to lack of response!! Please write. Keep us busy! We will publish both your barbs and your bouquets! Letters should be addressed to the Editor c/o Central Office.

Keep in touch.

Fran Cotton
Editor

to the Editor

Dear Sir;

In the June '87 issue of your magazine there appeared an advertisement submitted by Dr. John Snively in which, in part, was stated "ARE YOU AWARE...that the College of Dental Surgeons predicts there will be a surplus of Dental Hygienists within 3 years?"

On the basis that Dr. Snively lives in Nelson, B.C., I assume he is referring to the College of Dental Surgeons of B.C. and that the alleged assessment of Hygienist numbers is also B.C. based.

This being the case, let me point out that here in B.C. we do not have a surplus of Hygienists nor do we anticipate a surplus in the foreseeable future.

Currently we are actively attempting to attract Hygienists to B.C. from other parts of Canada and the U.S. To facilitate their relocation, we have deleted the rule that writing B.C. Board Exams is a requirement for graduates from accredited schools.

In addition, we have for some years actively requested that our Provincial Government establish new programs in other parts of B.C. Vancouver Community College graduates only 20 Hygienists per year. The College of New Caledonia in Prince George is inaugurating their new program this fall and we expect 20 additional graduates by the spring of 1989. Camosun College in Victoria is considering, with our firm support, a program for Vancouver Island.

By means of this information, I hope to clearly indicate the conditions that currently exist in the Hygiene profession in B.C. Although we recognize the oversupply of Dentists in B.C., and nationally for that matter, that circumstance does not exist for Hygienists now nor in the foreseeable future.

Our efforts to monitor the supply of qualified oral health workers including Hygienists and Certified Dental Assistants and provide support for increased numbers when necessary is an ongoing commitment by the College of Dental Surgeons of B.C.

Thank you for your attention.

Yours truly,

Don Lauriente, D.M.D.
Director, Member Services Division
College of Dental Surgeons of B.C.

to the Editor

In the last issue of *Probe*, you read about CFDE Month and how you could help both CFDE and dental hygienists across Canada by making an annual donation to the Fund.

To all those who donated, may I extend my most sincere appreciation. To those who didn't quite get around to it, I would like to tell you about two of our donor programs which you may be interested in.

When was the last time someone you knew in the dental field celebrated a major event in his or her life and you didn't quite know an appropriate way to acknowledge it? In future, think of CFDE. We have tribute cards available which can be used for any occasion and sent on your behalf, informing the recipient that a donation has generously been made by you. Not only have you paid tribute to a friend or colleague, but you have also made a tax deductible donation to an organization which supports dental hygiene in Canada.

CFDE also uses in memoriam cards to honour the memory of your friends, professors, colleagues, or members of their families. The name of the individual is then inscribed in our beautiful Book of Remembrance.

If you would like to make a donation either in tribute or in memoriam, send your cheque to:

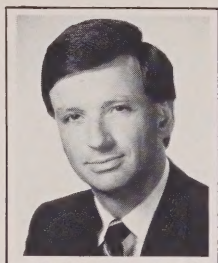
Canadian Fund for
Dental Education
Suite 105-1815 Alta Vista Drive
Ottawa, Ontario K1G 3Y6

Or call (613) 731-0493 and use your Visa card to make your donation.

Once again, thank you to all who have already contributed to CFDE. I hope you will continue to support the Fund in the years to come.

J. Fred Reid, D.D.S.
Chairman,





CDA President

Dr. Ron J. Markey, of Vancouver, British Columbia assumed the office of President of the Canadian Dental Association for 1987-1988 at the annual meeting of the Association's Board of Governors September 11 & 12, Ottawa.

Dr. Markey brings to the presidency a great deal of experience in organized dentistry obtained through executive positions with the Vancouver and District Dental Society, the Interspecialty Dental Society of B.C., and the British Columbia Society of Orthodontists. He also served as President of the College of Dental Surgeons of British Columbia from 1982 to 1984. Dr. Markey has been a member of the CDA's Board of Governors since 1981.

Executive Council Travel Report

On Friday, October 25, Ellen Brownstone, President, and Signe Arason, Secretary, motored to Regina, Saskatchewan.

Ellen and Signe attended the Saskatchewan Dental Hygienists' Association general business meeting the morning of October 26. After a catered lunch, provided by S.D.H.A. Ellen addressed the members present and provided them with an overview of C.D.H.A. activities.

An executive council meeting was held at Dianne Gallagher's on Sunday, October 27.



CONGREGATE IN '88 CDHA/CDAA/CDA Convention Edmonton, August 21-24

Call for Abstracts: Free Paper, Poster and Table Clinic Presentations

Abstracts of presentations on new clinical procedures, clinical research, community health programs and research, and dental hygiene issues are now being requested.

Submissions will be reviewed and selected for presentation at Tuesday, August 23 sessions.

All copies of abstracts must be received by March 1, 1988.

Notification of acceptance will be made by May 1, 1988.

For further information contact,

The Scientific Committee
1988 CDHA Convention
c/o Barbara Zier
2032 Dentistry Pharmacy
Centre
University of Alberta
Edmonton, Alberta T6G 2E1
Telephone: (403) 432-4479

ANNOUNCEMENT

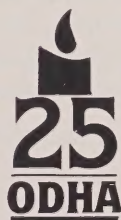
The Ontario Dental
Hygienist's Association
is pleased to announce
that 1988 is our


25th ANNIVERSARY

Share in Our

"Celebration With a Smile"

We will be highlighting our 25th Anniversary at our spring convention to be held May 9, 10 at the Holiday Inn downtown in Toronto. To those of you who have been a part of ODHA's history, please come and celebrate with us.



For more information contact

O.D.H.A.
102-237 Locke St. S.
Hamilton, Ontario L8P 4B8
(416) 528-1283

CFDE Now Accepting Fellowship Applications for Teacher/Research Training

OTTAWA (October 1, 1987) - The Canadian Fund for Dental Education has just announced that March 1, 1988 will be the deadline for filing applications for a teacher/research fellowship for the 1988/89 academic year.

Forms and information may be obtained from the Dean's office in each of the Canadian Faculties of Dentistry or through the office of the CFDE, located at 105-1815 Alta Vista Drive, Ottawa, Ontario, K1G 3Y6, (613) 731-0493.

Candidates must be Canadian citizens or permanent residents who have completed an undergraduate course in dentistry, dental hygiene or a program in science and be eligible for admission to a graduate school.

Applicants must declare their firm intention to become a teacher and/or researcher in a Canadian Faculty of Dentistry or Dental Auxiliary Training Program. The minimum commitment in this regard is two days per week and preference will be given to those applicants who will return to a full-time teaching/research position.

The number and the value of each fellowship will be determined by the Fund's Advisory Committee on Fellowship Selection and the Board of Trustees.

The Names of the fellowship recipients will be announced after the CFDE Annual Board of Trustees meeting, in the middle of the month of May 1988.

For further information, contact:
C.F.D.E.
Louise Préfontaine
1815 Alta Vista Drive
Suite 105
Ottawa, Ontario, K1G 3Y6
(613) 731-0493

ATTENTION ALL DALHOUSIE DENTAL HYGIENE GRADUATES

Let's Celebrate our 25th Anniversary

June 23-26, 1988
Halifax, Nova Scotia

Some highlights of the Program include:

Thursday, June 23

7:00 p.m. Registration, Lobby of Dental School
Wine and Cheese Reception

Friday, June 24

Morning The New Face of Dental Hygiene
Speaker: Michele Darby
1:00-3:00 A Special Luncheon to Roast Kate MacDonald
Evening Class Reunions

Saturday, June 25

9:30-12:00 Maintaining Peak Performance
Speaker: Dr. Brad MacRae
12:30 p.m. Luncheon in Sherriff Hall
- A chance to dine with your classmates
Evening A tour on the Harbour Queen accompanied by a Dixieland Band

Sunday, June 26

Morning Brunch at McAskill's
Speaker: TBA

We need all of you to make this celebration a success!
Please mark these dates on your calendar and come have a wonderful time with your colleagues and classmates.

Note of Interest

*"In 1961, the School of Dental Hygiene at Dalhousie began under the directorship of Mrs. Janet Burnham who also proved to be inspirational in the formation of the Nova Scotia Dental Hygienists' Association in April of 1962".**

The year 1987 marks the twenty-fifth anniversary of the Nova Scotia Dental Hygienists' Association. The first organizational meeting of the CDHA took place in May, 1963 in Toronto, Ontario.

*Excerpt from NSDHA Handbook



Patricia Ann Noble Dental Hygiene Department Head College of New Caledonia, British Columbia

Patricia received her Associate of Applied Sciences (AAS) in 1969 from the State University of New York ATC, Farmingdale; her Bachelor of Science (BS) in 1971 from Ohio State University; and her Masters in Education (MEd) in 1981 from the University of Georgia. Her varied career includes three years full-time private practice in Dental Hygiene; five years as an Instructor of Dental Hygiene, and six years as Assistant Professor of Dental Hygiene at Clayton Junior College in Morrow, Georgia; and one and a half years as Manager, Clinic Education, of Dental One Inc., Atlanta, Georgia.

She has served for the ADHA, and was President For the Georgia DHA in 1980/81.



We would like to thank many of you for responding to the request for tracking down "missing" hygienists. The response has been very positive. Many of the so-called "missing" hygienists were already listed with CDHA under an updated name. We would hope that this has not caused any inconvenience to any of our members.

CDHA Distinguished Service Award

Frequency:

Once per year.

Nomination Procedure:

- Nominations may come from any sector, province, executive council, directors or committees;
- Nomination sheets will be circulated with executive minutes in January, 1988.

Criteria for Nomination:

- Five years minimum membership with CDHA and provincial organization.
- Played an active role for a minimum of three years, i.e., in an official capacity.
- Made a notable contribution to the profession of dental hygiene in the national or provincial

organization in the promotion of dental health to the public, or

- Being involved in a long-term project that encompasses any of the above criteria.

Award:

The recipient will receive:

- A plaque suitably inscribed.
- Acknowledgement in the national publication of CDHA and provincial newsletters.
- Complimentary membership/convention registration at the person's discretion.
- An invitation to join the head table at the President's Luncheon, should the winner attend the annual session.

ACKNOWLEDGEMENTS



Our sincere thanks to Frank W. Horner/Jordan Toothbrushes for their sponsorship at the President's reception, June 87.

l. to r. - Debbie Daniels, CDHA Corporate Relations Officer, Jim Dieroff, Horner; Group Product Manager, Ed Daly, Horner; Product Manager, Dental Product Division,



The CDHA wishes to thank Myra Lofts, Consumer & Professional Relations Director for Colgate-Palmolive and acknowledge the contribution of Colgate Palmolive to the fall membership campaign. CDHA appreciates Colgate's continuing support to our profession.

CONTINUING EDUCATION

Enhance Your Clinical Competency

The Division of Continuing Professional Education, Faculty of Dentistry, University of Alberta is planning a clinical participation course May 2nd to the 6th, 1988. The preliminary details are:

Course Objectives

1. Update your instrumentation skills in calculus detection, periodontal probing and root planing.
2. Improve competencies in instrument sharpening, margination and amalgam polishing.
3. Master techniques in cavitron and prophylactic jet utilization.
4. Re-enter active practice and fine-tune your skills.
5. Prepare for the Universities Coordinating Council Professional examination in Dental Hygiene.

The course fee is set at five hundred dollars (\$500.00) Canadian per participant. This fee will cover the cost of didactic and clinical instructors and support staff and,

the cost of supplies and disposables for the week. Luncheon and refreshments breaks are included. Patients will also be appointed by the Faculty for course participants. Each person enrolled in the course will be required to purchase an instrument kit. This is at University student cost of approximately \$140.00. The kit will become the participants' property when the course is completed.

PLEASE NOTE THAT RADIOGRAPHIC TECHNIQUES ARE NOT INCLUDED IN THIS COURSE.

Course Coordinators

Ms. B.A. Zier, *Dip. D.H., B.Ed., M.Ed.*
Ms. J.F. Pimlott, *Dip. D.H., B.Sc.D., M.Sc.*

For Further Information:

Write the Division of Dental Hygiene at
#2032 Dentistry/Pharmacy Building, Faculty of Dentistry, University of Alberta, Edmonton, Alberta, T6G 2N8 or telephone (403) 432-4479.

Dates to Remember

1987

Dec. 5, 6 ■ Regional Development Seminar
Winnipeg, Manitoba

1988

Feb. 27, 28 ■ CDHA Interim Board - Ottawa

May 9, 10 ■ ODHA Convention - Toronto

June 8-12 ■ CDHA Annual Board - Ottawa

August 21-24 ■ CDHA Convention '88 - Edmonton

1989

June 28 - July 1 ■ International Symposium - Ottawa

Caribbean Cruise February 6-13, 1988

Continuing Education/Relaxation

Courses:

- Pathogenesis, Diagnosis and Management of Disorders related to the Temporomandibular Joint
- Issues in Preventive Modalities

Approved for Continuing Education Hours

- T.M.J. Component 20 hours
- Preventive Modalities 6 hours

Course Tuition:

- Dentists: \$295.00
- Assistants: \$125.00
- Hygienists: \$125.00
- Office Assistants: \$125.00

For further information on the Caribbean Continuing Education Program/Cruise contact:

Continuing Professional Education
Room 4063 Dentistry/Pharmacy Building
Faculty of Dentistry, University of Alberta
Edmonton, Alberta, Canada
T6G 2N8
(403) 432-5023 or 432-8240

Travel Arrangements have been made through *Pacific Travel*. For further travel information call collect:

Jane A. Greasley
Pacific Travel Corp.
Main Floor, 9940-106 Street
Edmonton, Alberta, Canada
T5K 2N2
(403) 428-8251

University of Alberta
Edmonton T6G 2E1

Times Are Changing - Are You Ready? Clinical Management of the Elderly Patient

April 21, 22, 1988
Winnipeg, Manitoba
Canada

Thursday Evening, April 21

- AN OVERVIEW OF THE DENTAL NEEDS OF THE AGING POPULATION
Saul Kamen, D.D.S.

Friday Morning Lectures, April 22

- DRUGS AND THE ELDERLY
Saul Kamen, D.D.S.
- THE IMPACT OF ATTITUDES ON OLDER PERSONS'S USE OF DENTAL SERVICES
Asuman Kiyak, M.A., Ph.D.

- THE ROLE OF THE DENTAL TEAM
Barbara Smith, R.D.H., B.S., M.D.H.
- CLINICAL DECISION MAKING FOR THE GERIATRIC DENTAL PATIENT
Douglas Berkey, D.D.S.

Friday Afternoon Concurrent Sessions, April 22

Session One:

- PROSTHODONTICS FOR ELDERLY PEOPLE
Michael MacEntee, L.D.S., Dip. Prosth.
- PROMOTING APPROPRIATE RESPONSES TO ORAL SYMPTOMS
Joe Holtzman, Ph.D.
- THE PSYCHIATRY OF OLD AGE
Colin Powell, M.B., F.R.C.P. Edinburgh, F.R.C.P. Glasgow

Session Two:

- RESTORATIVE DENTAL CONSIDERATIONS FOR THE ELDERLY
Douglas Berkey, D.D.S.
- PORTABLE DENTAL SERVICES FOR THE ELDERLY
Richard Shaver, D.M.D.
- EXPERIENCING DENTAL CARE: AN OLD PERSON'S POINT OF VIEW
Lynn Mitchell-Pedersen, R.N., M.Ed.

TUITION:

Dentist - \$150.00 Allied Dental/Health Care Personnel - \$75.00 (Includes Thursday dinner and Friday luncheon & refreshments)

FOR FURTHER INFORMATION:

Phone: (204) 788-6331 or write to:

The Division of
Continuing Education
Faculty of Dentistry
University of Manitoba
780 Bannatyne Avenue
Winnipeg, Manitoba
R3E 0W3

Canadian Dental Association Announces Conference on Infection Control

On Sunday, February 28, 1988, the Canadian Dental Association plans to hold a Conference on Infection Control in Toronto. The Conference will address both the scientific and ethical/legal aspects of treating patients with communicable diseases, such as AIDS and Hepatitis-B. For further details contact CDA at (613) 523-1770.

October 26-29, 1988
American Academy for
Cerebral Palsy and
Developmental Medicine
42nd Annual Meeting

Deadline for free papers:
February 12, 1988

Hotel Royal York,
Toronto, Ontario

INFO: AACPD, PO Box 11086,
Richmond, VA 23230, USA

NEW FLUOR-A-DAY™

(Sodium Fluoride)

Indications:

Dental caries prophylaxis.

Supplied:

Tablets: Each airplane shaped, white, raspberry flavored, chewable tablet contains: 2.21 mg of Sodium Fluoride U.S.P. equivalent to 1 mg of Fluoride ion, in a specially formulated vehicle containing Xylitol. Bottles of 120 and 1000 tablets.

Drops:

Each mL of clear, colorless and odorless liquid contains: Sodium Fluoride U.S.P. 5.56 mg (equivalent to 1 mg fluoride ion per 8 drops). Bottles of 60 mL.

PAAB
CCPP

pharma
science

MEMBERSHIP

December 31st Membership Draw

On December 31st two draws for complementary C.D.H.A. memberships will be made. If you haven't already done so, mail your membership fee today, to be eligible for a full C.D.H.A. refund.

Membership Reminder Notice

It's not too late - if you haven't mailed your membership fees just fill out the Invitation to Participate and send to:
C.D.H.A.
1320 Carling Ave.
Ottawa, Ontario K1Z 7K9

TILDEN RED PLAN NOW AVAILABLE!



Discounts on
Hotels and Car Rentals

Your Tilden Discount Card
available from:
CDHA Central Office

These are combined fees for provincial associations and C.D.H.A.

FEE SCHEDULE

PROVINCE	ACTIVE	SUPPORT	STUDENT
Alberta	130.00	40.00	40.00
British Columbia	121.00	40.00	30.00
Manitoba	90.00	29.00	27.00
New Brunswick	90.00	30.00	25.00
Newfoundland	90.00	30.00	25.00
Nova Scotia	105.00	25.00	25.00
Ontario	145.00	55.00	50.00
Prince Edward Island	90.00	25.00	25.00
Quebec	70.00	25.00	25.00
Saskatchewan	130.00	45.00	40.00

Fees are payable on or before October 31, 1987

Associate Membership Fees:

Associate membership allows out of province residents the opportunity to support a provincial association.

Alta. - \$15.00 B.C. - \$15.00
Man. - \$4.00 N.B. - \$5.00
Nfld. - \$5.00 Ont. - \$30.00
Sask. - \$20.00 P.E.I. and N.S.
- no charge

Saskatchewan Residents:

Saskatchewan residents submit fees in January with their provincial licence fee.

Non-Canadian Residents:

Associate membership for C.D.H.A. is available if you reside out of Canada. The fee is \$25.00. You may join the provincial association of your choice as an associate member.

CDHA Insurance

- CDHA Insurance Consultant, Ron Berry, who is not affiliated with any insurance companies offering plans to hygienists, will

assist with information, agents and problems
c/o Merit Insurance Brokers,
100 Tempo Ave.,
Willowdale, Ont. M2H 2N8
(416) 497-5556

LAST NAME _____
FIRST NAME _____ INITIAL _____
BIRTH NAME _____
STREET _____
CITY _____
PROVINCE _____ POSTAL CODE _____
TELEPHONE (home) _____ TELEPHONE (office) _____
SCHOOL OF GRADUATION _____ YEAR OF GRADUATION _____
EMPLOYMENT
☐ Private Practice ☐ Education ☐ Public Health ☐ Other
METHOD OF PAYMENT
☐ CHEQUE ☐ VISA # _____ Expires _____
AMOUNT ENCLOSED \$ _____

Attach mailing label here

*Invitation
to Participate*

MEMBERSHIP

- ☐ ACTIVE
☐ SUPPORT
☐ STUDENT

PROVINCE _____

AMOUNT \$ _____

- ☐ ASSOCIATE
PROVINCE _____

AMOUNT \$ _____

- ☐ CDHA ASSOCIATE
OUT OF COUNTRY ☐

AMOUNT \$ _____

TOTAL FEES
ENCLOSED

\$ _____

C.D.H.A. RESEARCH FELLOWSHIP



Yvonne Knazan

1987-88 Recipient

Yvonne Knazan, Dip.D.H., B.A. has been selected as the first recipient of the C.D.H.A. Research Fellowship. This \$3,000.00 fellowship is awarded annually. A selection is made from candidates who are Canadian dental hygienists enrolled in a research oriented Masters or Doctoral program.

Yvonne Knazan is a 1973 graduate of the University of Manitoba, School of Dental Hygiene. She also obtained a Bachelor of Arts degree in 1973 from the University of Manitoba. Yvonne has practised clinical dental hygiene since 1973. From 1974-77, she served as a part-time clinical instructor at the University of Manitoba, School of Dental Hygiene. She has held a full-time academic appointment with the University of Manitoba, Faculty of Dentistry/School of Dental Hygiene since 1985 as a teacher in community dental health and coordinator of a geriatric faculty outreach program.

Yvonne has particular expertise in geriatric dentistry. She has served as a program coordinator for a two year demonstration project (1983-85) on Dental Health Promotion for Senior Citizens, funded by the Health Promotion Directorate, Health and Welfare Canada with support-in-kind from the University of Manitoba, Faculty of Dentistry and School of Dental Hygiene. Yvonne has published in

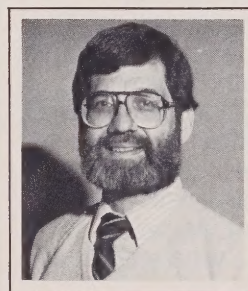
the area of geriatric dentistry and presented several scientific papers at national and international meetings.

She is presently enrolled in a Master's program (Health Education) at the University of Manitoba, Faculty of Education where her thesis will involve a study of 250 well-elderly, aged 65 years and over in Winnipeg who will be interviewed regarding their oral symptom experience and health care seeking behavior. This study will research the question: Which variables of oral symptoms (severity, novelty, duration) are most predictive of seeking care through the formal health care system and, is symptom response a function of individual factors such as sex, age, education, etc.? ■

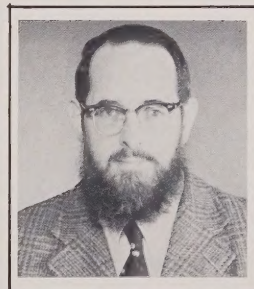
■
Selection of C.D.H.A. Research Fellowship recipients is made by Executive Council upon recommendations from the Ad Hoc Advisory Committee, Research Training Fellowship. Members of this committee for 1987-88 include Prof. Marnie Forgay, Chair (Halifax), Dr. Elliott Sutow (Halifax), Dr. Colin Dawes (Winnipeg), and Ms. Fern Hubbard (Nanaimo).
■



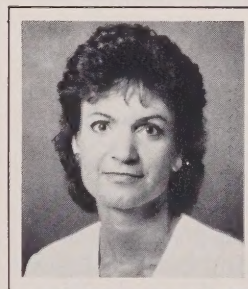
Prof. Marnie Forgay



Dr. Elliott Sutow



Dr. Colin Dawes



Ms. Fern Hubbard



Volunteer Work in Deaf Community Keeps this Dental Hygienist Going

Dorothea-Joan Sweeney,
R.D.H., B.Sc.D.

As tradition has it, most dental hygienists work a five day week in private practice. As well many continue to work their hygiene years without complete career satisfaction. For one reason or another, it is not always easy to change careers or to find the ideal workplace.

However, there are alternatives. One is freelance work. The other is to find something that one enjoys doing. This enjoyment, one may or may not be able to incorporate into one's career. A chosen alternative could greatly enhance oneself as a person and as a dental hygienist.

For myself, the combination of the two alternatives enables me to fulfill many areas of interest. My thrill of the week is mainly my volunteer work in the deaf community. One day per week I work with and assist the teachers at the Bob Rumball Centre for the Deaf, Toronto, Ontario, with their deaf or hard of hearing pre-schoolers. (Some children are hearing but their parents are deaf.) The term hearing impaired is avoided as it is a very broad term.

By definition, 'hearing impaired' includes deaf, hard of hearing, and any kind of hearing loss or problems which may interfere with learning in any way. The term 'deaf' implies the absence of hearing in both ears. It is possible for some deaf persons - even those considered profoundly deaf - to have voice. This is possible because of their upbringing and were trained to use their voice. If loss of hearing has occurred after the acquisition of

language skills, then these deaf persons too will have speech. Both groups can be described as 'oral' as is properly termed. 'Hard of hearing' is the loss of some hearing at birth or later in life and these persons do have language as well.

Many hearing persons presume that many deaf persons have the ability to speechread or lipread. Not all deaf or hard of hearing people have this ability. This is a skill that some can develop and acquire and others cannot. Age at which the hearing loss occurred makes a difference. A person who becomes deaf as an adult may not be able to read lips readily and therefore it becomes an art that must be learned and practiced regularly, yet without guarantee of acquiring it. Research has found that about three out of every ten words can be lipread clearly. Lipreading is somewhat like a fill-in-the-blank test. Only 30-40% of speech is visible as many words have the same mouth shape and movement of the lips. Only through sound can one tell the difference.¹

Being a graduate of DECOD, (Dental Education Care of the Disabled, Seattle, Washington), I have special training and experience with disabled persons. DECOD is designed to teach, to prepare, and to train those in the dental field how to cope with one's fears and lack of knowledge about the disabled, and how to treat both disabled and handicapped people comfortably.

My interest in sign language is not recent. My first encounter with sign language was while participating in

the DECOD programme. A few of my clients were deaf and required the aid of another person who signed and had speech. (Someone who can sign is not necessarily an interpreter.) I was amazed at how quickly and beautifully my lengthy questions and statements were signed and the answer relayed back to me. I decided that I, too, would like to learn this 'speech of silence.' As well, a personal bias prompted my interest more. As a youngster, I relied a lot on lipreading, during school especially, for differentiation of similar sounds, due to congenital nerve damage that affected my hearing. I am not deaf nor can I call myself hard of hearing. But I certainly understand the frustrations felt by those who are. In fact, to quote Helen Keller from her autobiography: "I would rather be blind than deaf if I had the choice. When you are blind you simply cannot see. When you are deaf, you are not able to communicate."

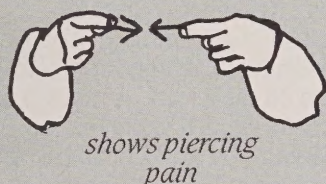
As a dental hygienist, considering myself to be part of an integral health service, I feel it is important to avail not only my skills and services to all, but more so to be knowledgeable in all aspects of health and well-being. There are legally more deaf persons than there are legally blind persons. Ten percent of the population has some kind of hearing impairment (either they are hard of hearing or they are deaf), and more people are totally deaf than are legally blind.

It is only within the past year that I have been learning ASL - (American Sign Language) - and about the deaf culture. ASL is sometimes referred to as Ameslan. It is not based on, nor is it derived from, English. Nor is ASL universal, and would only be understood by Deaf Canadians and Americans. It is a true language, using particular signs portraying a particular concept, i.e., to indicate time, one points to a wristwatch, or the place where one is usually worn. ASL is a native language of deaf people...and also carries with it the

culture of generations of deaf people...and serves as the principal identifying characteristic of members of this culture, and embodies the values and experiences of its users.³ Most major cities across Canada offer sign language classes.

My involvement with the pre-schoolers is not generally of the dental capacity. The exception is on special occasions such as health lessons, nutrition, or the National Dental Health Month. I work either with one teacher and her/his group or one-on-one with a specific child. This requires aiding and teaching the child in language skills, motor skills, behaviour skills, or socialization aspects. I have always worked with children either in community groups or teaching public health in classroom settings.

'Pain,' 'Ache,' 'Sore'



shows piercing pain

My experience both in DECOD and pediatric dentistry, has permitted me to use the principles of behaviour modification, elements of reinforcement and reinforcers, and a lot of show-tell-do games and techniques. Thus, I am able to use some of that knowledge and experience with the children of multiple disabilities. The challenge is physically and mentally exhausting at times, but I look forward to my time spent with the children and teachers and miss them when I cannot be there.

In the future, I hope to do additional volunteer work with the children, to be more involved with developing lesson plans on my own, and also to work with seniors. This same center for the deaf has a residence with both a medical and dental care team. I hope to become part of the dental team on a volunteer basis. Until the supervision laws change in the Province of Ontario, I can only volunteer in a dental capacity where there is a dentist on staff.

Incidentally, I have had the opportunity to use ASL with deaf clients in private practice. While technical terms are usually finger-spelled, I have been able to hold conversations of a general nature,

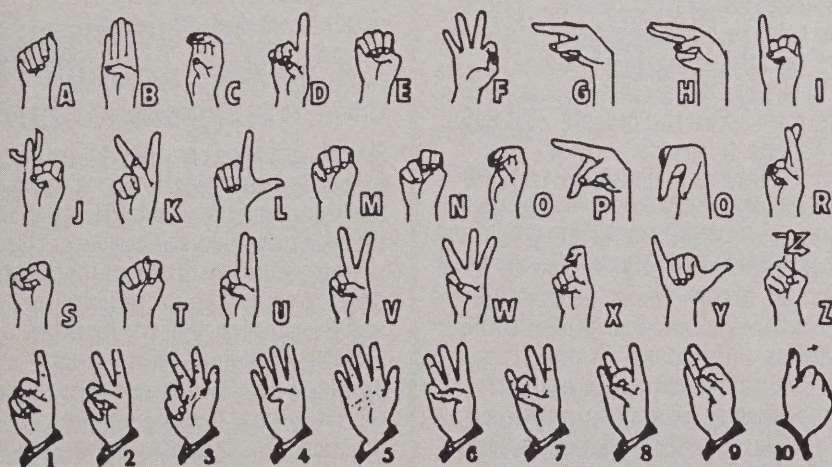
to the delight of my clients. Devoting time to, and enjoying at least one day of my volunteer work, keeps me going as a dental hygienist. (It may be my way of preventing boredom and burn-out.) I became a dental hygienist for public/community health work, and this is one way I can fulfill my desire and responsibility to the community.

I guess the bottom line is, whatever permits you to feel productive in your work and your life, you should go for it! You're not crazy if your thrill is volunteering for the town's fire department, or reading for the blind. Instead, you may discover that you have become self-fulfilled and perhaps self-actualized.■

For more information contact:
The Canadian Hearing Society
271 Spadina Rd., Toronto, Ontario
M5R 2V3 Tel. 964-9595

References

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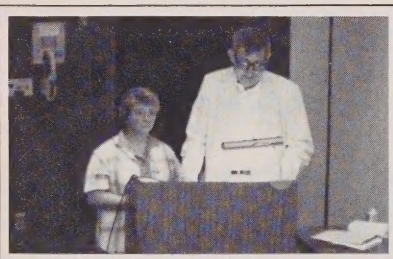
FINGER SPELLING

As seen by the receiver

*July 15-18, 1987
University
of Iowa*

REPORT ON: NATIONAL DENTAL HYGIENE RESEARCH CONFERENCE

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The Second National Dental Hygiene Research Conference was held at the University of Iowa in Iowa City on July 15-18, 1987. There were 120 participants from across the United States with Anne Bosy, Fran Cotton, Pat Johnson, Carol Ono and Eleanor McIntyre, as the Canadian Contingent. We were truly impressed with the superb facilities of the Faculty of Dentistry at the University of Iowa and the Dows' Institute for Dental Research who played host to the Conference and the obvious support which they have for research in dental hygiene.

The focus of the Conference was twofold: (1) the role of research in theory development as it relates to a practice discipline and (2) the current state of the art in dental hygiene research. These foci were presented in a variety of formats which involved the participants in theory development, i.e. lectures, workshops, small group sessions, poster presentations and the

opportunity for informal discussion which proved to be both stimulating and thought-provoking.

The keynote speakers, James Dickoff and Patricia James from the Department of Philosophy at Kent State University presented a two-day session on scientific methodology of theory development, "The Organization and Expansion of Knowledge". Central to this methodology is the concept of the "thinking-doer". Hence, theory building is developed from inquiry about the practice of dental hygiene. It is not a body of elites producing knowledge but rather it is a dialectic between concept and practice with the clinician at the heart of theory-building which would, in turn, have relevance for educators, clinicians, students and clients. Participants in small group sessions, subsequently, had an opportunity to identify questions regarding dental hygiene practice which required research. In a workshop, participants working in pairs applied this methodology to a personal research question.

Dental hygienists, currently involved in research activities were provided with an opportunity to report on their work. A number of speakers alluded to the first Canadian Research Conference in Winnipeg in 1982 and its impact on American research in dental hygiene. These scientific sessions embraced three aspects of research: (1) dental hygiene practice (2) patient care and (3) general research topics i.e. "An Approach to Defining a Body of Knowledge Unique to Dental Hygiene".

Social activities provided a forum for the informal exchange of ideas and concerns about education and the practice of dental hygiene. The potential and enthusiasm for theory development was overwhelming and the ambience of the facilities and the intellectual stimulation provided a rarified atmosphere from which to view dental hygiene practice. The Canadian Contingent enjoyed the opportunity to fraternize with American colleagues establishing valuable liaisons within education and research. ■

THE ACTIVE HEALTH REPORT - PERSPECTIVES ON CANADA'S HEALTH PROMOTION SURVEY 1985



Joanne Clovis,
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The Active Health Report, recently published by Health and Welfare Canada, presents and discusses the results of Canada's first national survey to ask Canadians how they feel about their own health¹. The report, the first on Canada's Health Promotion Survey, reflects many of the concepts presented in the discussion paper "Achieving Health for All: A Framework For Health Promotion"². The aim of the Survey was to explore what Canadians think, feel, and know about health, and how these things relate to what they do.

Canada's Health Promotion Survey Methodology

This Survey was a telephone survey of 11,000 adult Canadians in June of 1985. Random digit dialing technology was used to contact nearly 1000 persons in each of the provinces and the territories. Participants were aged 15 years and over. Each participant was asked 109 questions covering 250 items of information. The response rate was about 80%. The "significant limitations" (The Active Health Report, p.6) of the survey are included in the *Review Comments* section of this review.

Results of the Survey

The results presented in the Report reflect the use of the data to explore some of the physical, social, and economic factors which affect health and some of the ways "in which we might respond to them" (The Report, p.7), and are presented under the following headings.

1. How Canadians Rate Their Health

61% of the respondents rated their health as excellent or very good. The perceptions of good health were nearly identical among all ages and both sexes. Moreover, 60% of respondents with an activity - limiting health problem also rated their health as good to excellent.

This data suggests that Canadians generally perceive themselves to be healthy and to most Canadians good health means more than the simple absence of disease or disability.

2. Striving for Health

Most respondents, 64%, said they made more of an effort than other people their age to improve their health. However, the differences between those who make more of an effort and those who do not are

small for many positive health habits. People who say they make more of an effort report better health. One of the main obstacles that seems to prevent people from making more of an effort to improve their health is poor health itself.

The data suggests that people are overestimating how much they actually do to improve their health.

3. Self Care: Selected Health Practices

Many people who do not have good health habits still rate their health as excellent: 20% of smokers rated their health as excellent; 28% of cocaine users rated their health as excellent; and, 29% of underweight, 22% of overweight, and 14% of obese respondents rated their health as excellent. Those who rate their health as poor are less likely to engage in a large number of positive health practices.

The data suggests that there is not a strong positive relationship between good health practices and reported good health.

4. Making Changes

Two-thirds of respondents acknowledged there is something they should be doing to improve their health and 62% reported that they intend to do something to improve their health in the next year. However, people who rated their

health as excellent and those who rated their health as poor were the least likely to intend to do something to improve their health. The stated health goals were frequently not related to what people felt they should do; for example, of those who said they should exercise more, only 50% intend to do so.

The data suggest that, though people perceive a need for improvement, there are barriers and difficulties which keep them from making changes.

5. Knowledge, Attitudes, and Beliefs

The differences in knowledge, attitudes, and beliefs between those who engaged in good health practices and those who did not were small. In fact, those with poor health practices often had knowledge, attitudes and beliefs that were very positive; for example, about one third of both smokers and non-smokers believe that smoking helps you to stay slim. A health knowledge index created from seven health related questions showed that those with a strong health orientation rated their health much like those with a weak health orientation.

The data shows that improved knowledge is a key factor in behavior change but it is not sufficient by itself.

6. Family Friends and Health

59% of respondents said that they had close friends with whom they could talk if they needed help. In comparing the health habits of respondents with those of their close friends and spouses, the behavior of family and friends was shown to strongly influence the respondent's behavior; for example, if most or all of a person's friends use marijuana, the chances are one in two that he or she will use marijuana.

The data shows that most people who have poor health habits have friends or family who do so as well.

7. Inequities and Health

Low income Canadians were shown to have health problems which were not 'poorer' or 'worse' than high income Canadians but were simply different. Those with less than secondary education were more likely to rate their health as poor than those with more education but those with secondary education did not have appreciably better health habits than those with poorer education. People who reported they were working were one and a half times more likely to say they were in excellent health than people who were unemployed.

The data shows that lower income, less-educated, and unemployed Canadians are all more likely than their well-off neighbors to rate their health as poor and to have fewer positive health habits.

8. What Canadians Want From Their Institutions

About 21% of respondents felt they needed more information on health topics. 80% felt that schools are an appropriate place to promote health though only 68% felt that the workplace was appropriate. In rating ten health topics relative to the importance for government action, the topics which were rated lowest in importance for government to deal with – eating habits and high blood pressure – ranked highest in terms of information needs. The two topics which ranked low in terms of information needs – alcohol and marijuana use – ranked highest in terms of importance of government action.

The data shows that the public perceives institutions as providers of health information and providers of policies and programs to maintain health.

Discussion of the Survey in the Report

Each of the Report chapters presenting the foregoing results has a section titled "Issues and Challenges" in which the results are

discussed within the context of current health issues. The following questions are representative of the issues raised. Are Canadians as healthy as they think they are? How do we get people to improve their health if they think their health is already good? Why do most Canadians claim to be concerned about health and motivated to act, yet persist in bad health habits? People think they know what they should do, but are their decisions well advised? To what extent can meaningful improvements be made in the health of disadvantaged Canadians by using health promotion approaches?

Review Comments

This review is not intended to be comprehensive but rather to point out a few of the most striking features of the Survey and the Report, particularly with reference to dental health.

1. Perspectives on Health Promotion and the Health of Canadians.

In 1974, a Working Paper was produced by National Health and Welfare titled *A New Perspective on the Health of Canadians* or more frequently referred to as the "Lalonde Report" for then Minister Marc Lalonde⁶. It very clearly outlined the limitations of the traditional view of the health field, major health problems and strategies for the future. It defined the environmental factors and behavioral risks resulting in more demands on the hospital system. Two broad objectives, five strategies and multiple courses of action were proposed. One of the strategies was "A Health Promotion Strategy aimed at informing, influencing and assisting both individuals and organizations so that they will accept more responsibility and be more active in matters affecting mental and physical health" (*A New Perspective on the Health of Canadians*, p.66). Thirteen years later the Active Health Report

summarizes with this statement: "We have moved beyond a consideration of what individuals can do for themselves to consider as well what individuals can do for and with others – as friends, as parents or relatives, as employers, teachers, community workers, or as health professionals" (The Report, p.43). The statements are similar and represent consistent philosophy and direction. This consistency is reassuring as a reconfirmation of the strength of the foundation which was laid in the early 1970's.

2. Health Promotion or Health Care System?

Although the Survey was titled "Canada's Health Promotion Survey" and the Report has many references to "health promotion", there are also references to health professionals, public health, and the health care system. These terms are not defined and their use in the Report does not appear to be consistent. Consider the following: "Health promotion must develop strategies and initiatives to help those whose health is too poor to help themselves" (The Report, p.21). This statement is more accurate if "the health care system" or even "health professionals" is substituted for "health promotion". Another example is the statement "Public health professionals...should not blame people for what they have not yet done to improve their health" (The Report, p.16). The use of the general term "health professionals" would more accurately reflect the significant roles of health professionals in the private sector and in institutions as well as public health.

3. Limitations of the Survey

The fact that the Report refers to "significant limitations" (The Report, p.6) is an alarm signal. The survey was of the non-institutionalized population only. Children were excluded. As a telephone survey the study further excluded the 3% of Canadians who do not

have telephones. This is significant given the relationship between health and economics that the report documents. The information provided by respondents is self-reported and may or may not reflect health status.

More important, however, is the fact that "Certain very important topics, such as dental health and sexuality...were excluded" (The Report, p.6). How is it that such a major undertaking as a national health survey would exclude references to oral health, an integral part of general health and well-being? Oral health is surely not as controversial as human sexuality.

It is commonly held that the mouth mirrors the general health and well-being of the individual³. It has also been said that, in the United States, dental disease constitutes the third most expensive health problem after heart disease and cancer⁴. Moreover all three are chronic diseases which are probably most effectively and economically prevented or controlled by promoting healthy lifestyles⁴.

A 1984 Health and Welfare Canada Report states that, in 1980, dental services in Canada were 5.74% of health expenditures and these costs were generated by only 50% of the population⁵. It also states that Canada's oral disease burden is seriously underestimated and that the ubiquitous nature of dental disease gives it great social impact. Given this universal nature of dental disease and that knowledge exists to prevent much of it, the exclusion of oral health items in Canada's Health Promotion Survey is a significant omission. An opportunity to add to our understanding of individual knowledge and perceptions of oral health was lost.

In conclusion, however slowly we may appear to be moving toward 'health for all' there is evidence that we Canadians do value good health and desire it personally, and we health professionals are enhancing our understanding and ability to act

responsibly and with caring. The information acquired through Canada's Health Promotion Survey in conjunction with our growing understanding of health status and positive health practices will help to shape future health care systems and policy. ■

For a copy of report:
Publications Officer
Health Promotion Directorate
Health & Welfare Canada
Ottawa, Ont. K1A 1B4

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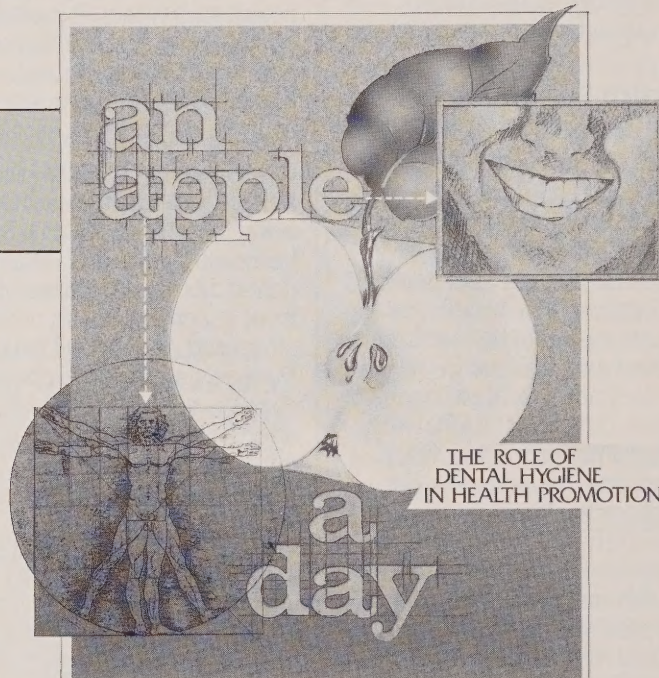
THE ROLE OF DENTAL HYGIENE IN HEALTH PROMOTION

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Preamble:

The focus of health promotion is to create an awareness of a participation in positive life practices toward an attainment of optimal health. This recently emerged health phenomenon places new light on the existing practices of health education. Health education and health promotion are not synonymous terms. In a traditional sense, dental hygiene care providers employ health education methods to "prevent" dental disease. Current and future promoters of health seek to advocate complete "wellness" through lifestyle modification rather than prevention of specific diseases.

The following presentation was made at the Ninth International Symposium on Dental Hygiene on July 11, 1983 in Philadelphia, Pennsylvania.



Introduction

What does "health promotion" mean?

How can the dental hygiene profession contribute to this relatively new concept in health, or can it?

It is my contention that the dental hygiene profession in the past and at present participate in health promotion and, that we have the potential for even greater involvement in the promotion of general and oral health.

Definition of Terms

Prior to discussing the role of *dental hygiene* in health promotion, it is necessary for us to have some

common understanding of the terms *health, health education, health promotion, dental health education, and oral health promotion.*

1. Health

If each of you were to ask your patients, peers, family members or colleagues what the word "health" meant to them, you would discover that each individual's orientation may be quite different. For some it means the absence of physical illness, the absence of mental illness or both, or for others being able to adapt to the environment.

In 1968 the World Health Organization defined health as, "a state of complete physical, mental and social well being and not

merely the absence of disease or infirmity".¹ Today this definition would be considered highly limiting as health concepts begin to revolve around improving our quality of life. Health today is often described by such terms as "holistic", "high level wellness" and "prospective medicine".

2. Health Education

As a dental hygiene student in the mid 1970's I recall reading about the concepts of health education and health promotion. At that time these terms were used interchangeably; understood to have a similar meaning which focused primarily on "disease prevention". Presently, health education and health promotion are still described by some health professionals as synonymous practices, but they are not.

Health education, whether it takes the form of a program targeted at a large group of people or involves one-on-one patient education is a method, a means by which we seek to "prevent disease". Prevention of disease is concerned with identifying those aspects of an individual and/or the environment which create or can create negative results or disease and then neutralizing or removing these aspects, which is in effect a negative activity.²

Essentially, as health educators we attempt to prevent disease by encouraging desirable health behaviours or by cessation of undesirable behaviour patterns. Strategies/methods/techniques and concepts of health education since the 1960's have become highly sophisticated and are known to be effective in creating short-term results, related to individual and group health practices. However, conceptually, health education can be seen as assuming a "negative" orientation toward health.

3. Health Promotion

Health promotion has nothing to do with curing disease or caring for the unwell or, preventing ill health. It is a concept which when activated stresses positive life practices and basic life skills which enhance health, while serving as preventive

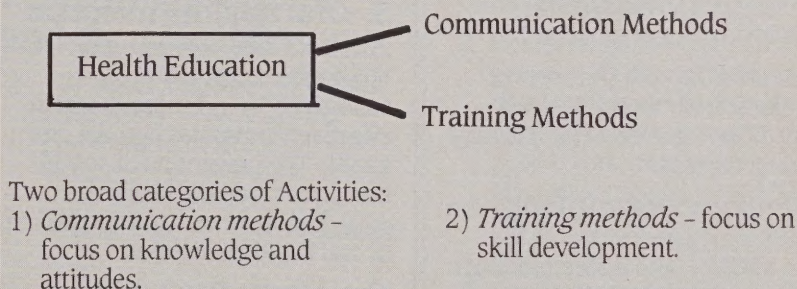
illness measures, at the same time. Contrary to the concept of health education, advocates of health promotion seek to identify those factors in the environment and factors possessed by people which promote health. Promoters of health reinforce positive lifestyle behaviors. This is a positive approach to health and produces long-term success.

To briefly review the distinction between the terms health education and health promotion we can say that, *health promotion uses a positive orientation of encouraging higher levels of wellness for a better quality of life rather than the adoption of behaviors to prevent specific illnesses and diseases.*³ However distinctive these terms are, both strategies are directed at improving quality of life.

Comparison Table of Activities Utilized in Health Education/Health Promotion

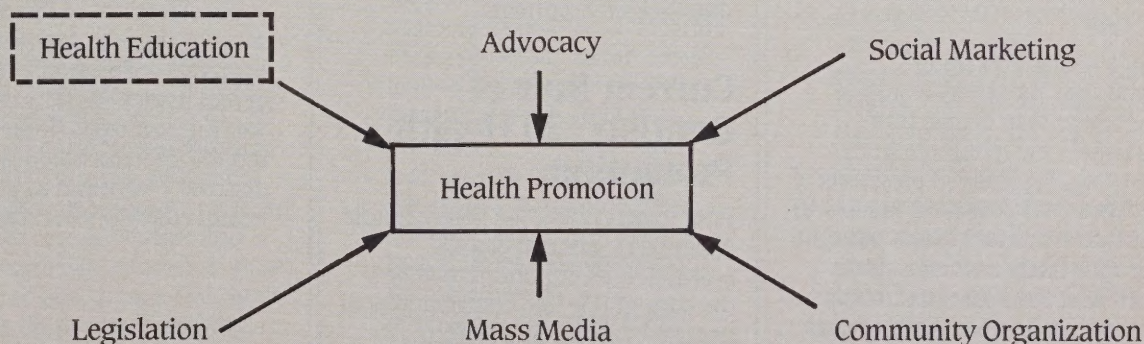
Health Education

Figure 1



Health Promotion

Figure 2



As we view the concept of health promotion it can be noted that health education plays a role along with several other activities in contributing to health promotion. However, health promotion is the primary mechanism by which optimum health will be achieved and quality of life improved.

The activities identified in Figure 2 are those most commonly employed to promote behaviors conducive to health.

Advocacy - is generally a precursor to legislation and utilizes strategies designed to educate decision makers to provide the essential political support for changes related to health.

Legislation - may be the result of several activities. It contributes to health promotion by making mandatory certain behaviors and actions conducive to health.

Social Marketing - is the design, implementation and control of programs seeking to increase the acceptability of a social idea or practice (such as health and lifestyle) in a target group(s).⁴

Mass Media - are channels of communication through which many diverse groups of people may receive a message.

Community Organization - is a process aimed at developing the skills, abilities, and understandings of groups of people for the purpose of self led improvement.

We can compare the concepts of health education and health promotion by using an example of a major health issue - "cigarette smoking".

From a health education perspective, programs would be designed to stop people from smoking or prevent them from beginning. Typically in programs of this nature, success rates are low to moderate while recidivism rates are high. This likely occurs because health educators attempt to treat maladaptive behaviors rather than seeking out the root causes of these behaviors.

In the case of smoking if a health promotion attitude is assumed, smoking would be considered a symptom of an undesirable interaction between an individual and their environment and efforts would be made to determine what it is in society that causes people to smoke. If the root causes of smoking were extinguished, the need to smoke would be dissolved. Health promotion in this instance would serve as a positive approach to health and likely produce long-term success.

4. Dental Health Education

Dental health education methods/strategies are employed for mainly four purposes:

1. to convince patients to act upon recommendations for oral health.
2. to convince patients to comply with prescribed preventive regimens.
3. to control dental disease.
4. to convince patients to accept individual responsibility for preventing oral diseases.⁵

5. Oral Health Promotion

Authors Definition - any method/strategy, any means, collectively or individually which effectively promotes optimal oral health. The prevention of specific oral disease (dental health education) is viewed as a component of oral health promotion.

Oral Health Promotion

Research - as viewed congruently with the definition would imply the investigation of the underlying causes of oral diseases as they relate to the interaction of humans and their environment.

Current Role of Dentistry in Health Promotion

Prior to describing the potential role of dental hygiene in health promotion its important to review the current role and contributions of dentistry toward oral health.

The terms: dental public health, dental health education, community dentistry and oral health promotion first appeared in the 1960's with the advent of the health education concept. The methods employed in health education and the idea of self-responsibility for ones state of health/illness strengthened through the 70's and grew in acceptance.

Efforts on the part of the dental profession at individual, group, community and national levels has made oral "health" a reality in the 1980's. The oral health status of Canadian and American populations has improved tremendously over the past decade by means of quality dental care and preventive dentistry measures, such as water fluoridation and sealants. In retrospect, it has been two decades since the concept of preventive dentistry took hold and made an impact on oral health. There is no question that dental health education in the past, at present, and in the future will play a significant role in achieving a standard of optimum oral health.

What function/roles do dental hygienists have at present as dental health educators? (not an exclusive list)

Private Practice/Clinical Setting

- provide one-on-one or group education related to positive dental health behaviors which reduce dental disease.
- plaque control, dietary counselling, use of fluorides, etc.
- settings include: dental office, hospitals, institutions, etc.
- dental hygienists may employ varying strategies (from behavior modification techniques to discovery learning) as dental health educators in these settings.

Community/Public Health Dentistry

Based on a 1979 Canadian survey conducted by Dr. Lewis on dental hygiene positions in Canada, approximately 9% of all employed dental hygienists are working in public health dentistry in varying positions. This statistic is similar for the United States.

In a public health setting (local, state/provincial, federal) dental hygienists may have varied roles other than that of clinician. These include:

- 1) Supervisor/administrator
- 2) Program coordinator/planner
- 3) Researcher
- 4) Consultant, resource person

These varied roles and functions of dental hygienists in health education have contributed greatly toward preventive dental health.

The question remains: What is the difference between the role of dental hygiene as "health educators" and, "promoters" of general and oral health?

Health promotion as a positive process digresses from a disease orientation to a wellness orientation. The four dimensions of wellness are: stress control, self-responsibility, nutritional awareness and, physical fitness. In a positive concept of health, people are seen as an integral part of their environment. Health promotion activities and programs and health care personnel can assist individuals in making positive choices.

In Canada the impetus for health promotion originated from the well-known Lalonde Report (1974). By comparison in the United States in the early 1970's, goals for health care were directed toward providing more health care personnel and relating health care education more effectively to health care. During the mid 1970's there was increasing recognition by the Carter

administration of the inter-relationships between health, environment and lifestyle, as morbidity and mortality rates accelerated for degenerative diseases. In 1979 the first Surgeon General's Report on Health Promotion and Disease Prevention was issued by the U.S. Department of Health, Education and Welfare. This report established broad national goals for the improvement of the health of Americans. As dental hygienists and health care professionals we can contribute to health promotion in 2 major ways:

1. by taking a more active role in promoting general health (includes oral health).
2. by searching out/investigating the underlying causes of undesirable oral health behaviors, identifying these causes and then removing them.

The Future Role of Dental Hygiene in Promoting General and Oral Health

1. The dental hygiene profession collectively, provide greater emphasis to health promotion in addition to their curative and preventive roles (may require re-orientation at formal training level).
2. Dental hygienists promote only those oral care methods that scientific studies have shown to be effective.⁶
3. Dental hygiene's continued support for and involvement in National Dental Health Month. National Dental Health Month lends itself to national, provincial/state, and local promotion strategies from mass-media blitzes to one-on-one health instruction. This annual event exposes the health promotion concept to many segments of the population including those Canadians and Americans who

have limited access to dentistry and oral health measures. Dale Scanlan, chairperson of the Canadian Dental Hygienists' Association committee for National Dental Health Month in 1981 stated, "the national event is a natural starting point for sparking the interest of people. The April activities will focus on creating awareness on a positive note".⁷

4. Dental hygienists, on individual, local, group, community or national levels increasingly promote nutrition as it is related to achieving optimum oral health and general health. Desirable nutrition practices will contribute to the prevention and control of dental caries, periodontal disease and oral cancer.
5. The dental hygiene profession work toward collaborating with other allied health workers in their efforts to promote health.
6. Dental hygienists act as role models of health.
7. Dental hygienists educate people with respect to the consequences of their existing lifestyles, that is, educate people with respect to the favorable implications of "good living" rather than the negative effects of poor living.
8. Dental hygienists practise with tools which provide standardized measures of health risk ("life quantity") and wellness ("life quality") for patient assessment.⁸
9. Recognize and have basic information on the role of other resources and programs (other than oral health activities) in the community related to health promotion.
10. Take an interest in and attempt to mobilize public concern for "wellness" at the community level. Support these policies, procedures and activities which promote health.

11. The area of Gerontology is increasing in focus, particularly with respect to health care. From a health promotion perspective, the dental hygiene profession must continue to identify desirable oral health behaviors which seniors can perform rather than emphasizing their deficiencies. A positive approach is essential.⁹
12. The dental hygiene profession must nurture the health promotion movement by continuing to demonstrate the cost-effectiveness of primary health services.
13. Research (sound empirical evidence) is needed in dental health promotion. Research interests within the dental hygiene profession are growing. This has been clearly demonstrated, for example, by the participation of sixty people at the first ever Conference on Dental Hygiene Research, organized by dental hygienists and held in Winnipeg, Canada in September of 1982. It was supported by the National Health Research Development Program (NHRDP), the Canadian Dental Hygienists' Association, the Canadian Fund for Dental Education (CFDE), and the Faculty of Dentistry, University of Manitoba. Dental hygienists have also been inspired to pursue research interests with assistance from a textbook written by two dental hygienists, Michele Darby and Denise Bowen, "Research Methods for Oral Health Professionals", published in 1980.

Conclusion

There are many unanswered questions related to dental health promotion programming.¹⁰ A few of these include:

1. We know that dental health promotion works if it is sufficiently adapted to the population, the problem and the circumstances in which it is implemented. What we do not know is how to describe these adaptations.
2. What methods have been established for the systematic planning and evaluation of dental health promotion programs?
3. What types of dental health promotion programs are effective with high risk populations? Why?

Before we begin to campaign strongly for health promotion in our places of employment and in the community at large, there are some barriers to be aware of:

1. current government policies on health may not encourage and facilitate the concept of health promotion.
2. the vested interest of the dental profession and other health professions to maintain the status quo.
3. lack of knowledge and understanding about wellness.
4. organizational/structural curtailment.
5. Lack of interest by the public.
6. the majority of dental and medical training programs continue to operate on a "disease model" orientation (treatment versus promotion of health).
7. question of "ethics" – does a dental hygienist or any other health professional have the right to impose the concept of health promotion on individuals and make recommendations concerning peoples lifestyles?

Wanting to close on a positive note, the challenge of research and activity in the field of oral and general health promotion can be ours, the DENTAL HYGIENE PROFESSION. ■

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DENTIFRICE DIMENSIONS

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In the September 1987 issue of this journal the concepts of mechanical plaque control were reviewed (1). An important adjunct to mechanical procedures is the utilization of dentifrices. This paper will discuss abrasivity and therapeutic and potentially therapeutic considerations related to dentifrices.

Dentifrices were initially introduced as a cosmetic product to be used for improved "whitening", "brightening" and "breath freshening". Early efforts at improving dentifrice formulations primarily focused on improving cleansing ability, reducing abrasive effects and providing enhanced flavor impact (2, 3).

Abrasivity

The degree of abrasivity needed for effective cleaning appears to vary from individual to individual (4-6). As might be expected, some concern has been generated regarding the safety of abrasivity levels. Most dentifrices available have abrasive agents which are very similar in abrasivity (6). It appears that cervical abrasion is not due to the abrasive characteristics of dentifrices (4, 5, 7). When cervical notching is a problem, careful assessment of toothbrushing method and toothbrushing force is indicated (4, 5).

Therapeutic Agents

The incorporation of therapeutic agents into dentifrices began in the 1930's with the addition of an ammonia solution. This agent was believed to be anticariogenic aiding in the reduction of dental plaque (5). There was a lack of evidence to support the use of these ammoniated dentifrices and they were removed from the market.

Today several therapeutic or potentially therapeutic agents are added to dentifrices; these include fluoride, anti-calculus agents, desensitizing agents and antimicrobial agents.

Fluoride

Fluoride has been widely used in dentistry for many years and is believed to be one of the most successful preventive agents known to man. However, in spite of this, its mechanism of action is still being debated.

At a symposium entitled, "Insights into the Caries Process and the Role of Fluorides", prominent caries and fluoride investigators gathered to discuss the most recent advances in knowledge of the caries process and mechanisms of fluoride action (8). The following is a capsulized summary of their findings.

Fluoride action appears to be a multifaceted process involving three mechanisms: the reduction of enamel solubility, the inhibition of microbial enzyme action and the enhancement of remineralization.

Clinicians often view the enamel surface as impermeable, but at high magnifications the surface appears

sponge-like with many pores, pits and fissures. Fluoride reduces enamel solubility by diffusing into the pores among the crystals and aids in the formation of fluoridated hydroxyapatite. The fluoridated hydroxyapatite crystals are strong and highly resistant to acid attack (8).

When fluoride is applied at high levels, for example topical fluoride gels containing 12,000 ppm, fluoride is bactericidal; that is, it will suppress and kill the growth of organisms. At lower concentrations, such as those found in dentifrices (1000 ppm) and mouthrinses (250 ppm), fluoride is bacteristatic. In its bacteristatic capacity, it slows down the microorganisms by interfering with several enzyme actions. The enzymes inhibited by fluoride include those responsible for the metabolism of sugar, acid formation and transport of sugar into the bacterial cell (8).

The beneficial effect of fluoride on remineralization is now believed to be the most important mechanism of fluoride action. Fluoride favors remineralization by acting as a catalyst thereby accelerating the regrowth or reformation of the enamel crystals. The end result is a larger, stronger crystal which is less soluble. Its smaller surface area to volume ratio makes it more resistant to further dissolution. The important point is that fluoride alone will not remineralize, it accelerates the natural process with saliva providing the right balance of minerals for remineralization (8).

Types of Fluoride

Sodium Fluoride

Early clinical studies revealed unfavorable results when sodium fluoride was added to dentifrices. It was found to be due to an incompatibility of the fluoride with the abrasive agent (9). After reformulations were carried out studies show favorable caries reduction in the range of 45-48% (10, 11).

Sodium Monofluorophosphate (MFP)

Sodium MFP is a relatively stable inorganic salt which when added to dentifrice in the concentration of .76% has shown to be an effective anticaries agent. Several dentifrices are available using sodium MFP and the clinical data from well controlled clinical studies have indicated reductions ranging from 20-42% (12-15).

Stannous Fluoride

Stannous fluoride traditionally had several disadvantages including a short shelf life, brown staining and mucosal irritation and consequently it lost popularity. At the present time there are no dentifrices available containing stannous fluoride. The clinical data available



shows favorable caries reduction with stannous fluoride. With the recent introduction of stannous fluoride mouthrinsing products, there are indications that dental technology may be able to formulate a more acceptable dentifrice product.

Acceptance Criteria

In 1983/84 the American Dental Association (ADA) Council on Dental Therapeutics reviewed its position relative to the evaluation of fluoride dentifrices. The issue was whether data from laboratory studies could serve as a sufficient basis for estimating clinical efficacy. They determined that laboratory and/or clinical data could be submitted.

The acceptance criteria and requirements for supporting data (Table I) remain essentially the same (16).

The acceptance program of the Canadian Dental Association (CDA) is limited to products containing fluoride. Dentifrice products bearing the CDA seal of recognition are listed in Table II.

Desensitizing Agents

Potassium nitrate, sodium citrate and strontium chloride are included in several dentifrices to reduce dentinal sensitivity and the clinical data appears favorable (17-21). However despite favorable clinical data no one treatment has been universally accepted as beneficial for reducing dentinal sensitivity. The ADA Council lists Denquel Sensitive Teeth Toothpaste, Promise with Fluoride, Protect Toothpaste

Table I. Required data needed for the Acceptance Program of the Council on Dental Therapeutics of the American Dental Association.

Animal caries studies
Fluoride availability and stability
Fluoride bioavailability in enamel
Ability of product to enhance remineralization
Ability of product to diminish demineralization
Additional supportive information (optional):
bacteriologic effect of product
release rate of therapeutic agent
effect of product on plaque metabolism

Table II. Dentifrice Products Bearing the CDA Seal of Recognition

Aim
Aqua-Fresh
Close-Up
Colgate
Colgate Modified Formula for Dispenser
Colgate Junior
Dentagard Formula for Dispenser
Dentagard Formula
Colgate Tartar Fighting Formula
Crest
Crest Modified Formula
Crest Tartar Fighting Formula
MacLeans
Metadent P
Sensodyne -F

October 5, 1987

and Sensodyne-F and Sensodyne Toothpaste as accepted desensitizing dentifrices (22). Protect is not available in Canada due to its formulation with saccharin.

Potential Therapeutic Dentifrices

In their attempt to capture bigger shares of the one billion dollars worth of dentifrice sales, manufacturers have expanded their horizons to focus on plaque and calculus (2).

Can a specifically formulated toothpaste fight plaque? Sanguinarine, a benzophenanthridine alkaloid, which is extracted from the plant *sanguinaria canadensis* (the blood root plant) has been added to a dentifrice product as an antiplaque agent. Although there has been some evidence of clinical effectiveness sufficient clinical efficacy has not been demonstrated according to the ADA council on Dental Therapeutics Guidelines for Acceptance of Chemotherapeutic Products (23, 24).

Consumer Reports in its March 1986 issue reports that in dentifrice testing of Dentagard, Aim, Aquafresh, Check-up and Pearl Drops Smokers Gel - the only antiplaque ingredient found was elbow grease (2). To date as far as plaque is concerned it is the mechanical action of flossing and brushing that is the important antiplaque force.

On the other hand, dentifrices that make anti-tartar claims do contain effective anticalculus ingredients that are showing promising clinical results.

These sodium fluoride dentifrices contain soluble pyrophosphates, crystal growth inhibitors, that interrupt the transformation of amorphous calcium in dental calculus. Zacherl et al (1985) reported significantly less calculus (in amount and severity of the formation) in the test group (25). This was also substantiated by

Mallatt et al (1985) who reported similar reductions in calculus formation (26). It should be noted as several authors acknowledge that no attempt has been made to assess the impact of the anti-calculus dentifrices on gingival health. It has been clearly established that dental plaque plays a primary etiological role in development of gingivitis. Although calculus is commonly covered with a layer of dental plaque, supragingival calculus per se is not considered to be a primary etiological factor in the development of gingivitis (4).

In a recent study a significant caries reduction was shown by these dentifrices (27). The seal of acceptance of the "anti-tartar" dentifrices has been awarded on the basis of fluoride action not on anti-calculus formation effects.

Another new product introduced in the last few years is a dentifrice containing two enzymes amyloglucosidase and glucose oxidase. Rather than containing an antimicrobial agent this enzyme supplementation bolsters the mouth's natural ability to disrupt the metabolism and growth of bacteria. Enzymes naturally present in saliva inhibit or slow sugar metabolism by acid-producing oral bacteria. As a result these enzymes act to reduce bacterial growth and acid production and have an effect on subsequent plaque reduction. Of the several salivary enzymes operating in the natural defense system lactoperoxidase has proven manipulable (20).

Salivary lactoperoxidase enzyme (LPO) in the oral cavity catalyzes the production of an antibacterial agent hypothiocyanite which interferes with the metabolism and growth of acid plaque producing bacteria.

Schoenfeld, Stamm, Meskin and Silverstone (1983) tested the effectiveness of Zendium and Fluoride containing dentifrice; statistically significant results favored Oral B Zendium (29).

An opposing view presented by Carlsson et al (30) found that under anaerobic conditions the enzyme system appeared to catalyze a reaction which protected certain bacteria from the bactericidal effect of hydrogen peroxide.

The rationale for enhancement of the salivary lactoperoxidase system is valid but current research data are inconclusive. The National Sales Manager for Oral B Laboratories in Canada explained that Zendium dentifrice products has been discontinued from their product line because of lack of consumer demand (31).

Conclusion

Toothbrushing with a dentifrice is probably the most widely employed method of patient home care. Originally dentifrices were adopted for their cosmetic role in mechanical plaque removal. However, later it was recognized that they could serve as a vehicle for therapeutic agents. Fluoride and desensitizing additives have demonstrated considerable efficacy. Now, interest is focusing on the potential of dentifrices to deliver antimicrobial or antiplaque compounds. At this time, no dentifrice product has received the seal of acceptance for a chemotherapeutic role in controlling supragingival plaque and/or gingivitis. ■

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ANOREXIA AND BULIMIA WHERE WILL THEY END?

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Abstract:

Anorexia Nervosa and Bulimia are two very dangerous diseases that are increasing in our society today. If they are not quickly recognized and treated, their effects can lead to permanent physical and emotional problems. As dental health professionals, it is our responsibility to be informed of these diseases and to be aware of the possible oral manifestations involved with them. With a knowledge in the area, the hygienist may be a link for the victim as far as detection, professional help and guidance are concerned.

You watch her change from a normal, happy person to an angry depressed skeleton who has absolutely no control over her disease. It becomes her life and possibly in extreme cases, her death.

Anorexia nervosa, often the counterpart to bulimia, is often defined as a loss of appetite due to emotional states, such as anxiety, irritation, anger and fear. However, in anorexia nervosa there is no real loss of appetite, but rather a refusal to eat. Anorexia nervosa was first described more than 100 years ago and was once thought to be rare. Today the prevalence may be as high as one in a hundred.¹²

The cause of anorexia nervosa is generally thought to be a disorder of psychological origin. The patient has a delusion of the proportion of his or her body size; that is, they have a tendency to overestimate the width of their own bodies. Often, they see themselves as wider and fatter than they really are. As a result, self-imposed starvation is undertaken as a mode to reduce body size.¹²

This particular eating disorder has a sudden onset, is triggered by an ordinary event or with major changes and crises in the patient's life, such as a death in the family, divorce or a broken romance.

Anorexia occurs in the absence of other medical or psychiatric diseases.⁹

These two diseases may often overlap and the anorectic may develop bulimic episodes while some bulimics may display eating patterns and weight loss of anorectics.

In conjunction with sharing eating patterns, the victims may also share an infatuation with food. In doing this, they may plan elaborate feasts for family and friends, read cookbooks and maintain rigid dietary habits.¹⁰ It is often said that they are obsessed with food and the idea of eating.¹⁰

In a search to gain information about anorexia and bulimia, the hygienist may find that the terms were practically nonexistent prior to 10-15 years ago, due to the fact that the diseases were almost unheard of.

The question is why now? Why are these "potential killers" on the increase when years ago no one knew what they were or that they even existed.

These answers lie in our societal influences. When we direct our attention to numerous and various television commercials regarding fitness, slim sexy bodies, diets, thin is in, and so on, the media consumes our self-image and becomes our life.^{4,8} For the potential

bulimic or anorexic patient, it becomes much more than this.

The mean age of onset for anorexia and bulimia is somewhere between the ages of 17 to 20 years with the majority of cases ranging from 16 to 30.^{9,6,1}

Further studies show that between 2 to 15% of college students have bulimia and of these cases, 87% of them were female.¹

These victims are often single, white, attractive women who are from what appears to be happy homes.^{6,13} The unfortunate aspect is often these women feel pressured to succeed, but have low self-esteem. Often there are feelings of worthlessness, guilt – suicide.

There is also another trait that is less common. This is the fear of pregnancy and adult womanhood. Many anorexics and bulimics originated from homes where the mother was pregnant one or more times while the potential victim was maturing. Could these events have instilled within them a fear of a rapidly growing, out of control fatness, that they will go to any extremes to avoid?⁸

There also appears to be a high correlation of anorexics or bulimics that stem from families in which the parents suffered from an addiction to alcohol, cigarette smoking, or any other obsessive behavior trait. In these instances, these parents passed down their obsessive traits to their children in the form of eating disorders. In many, but not all of these families, food was used as a manipulative device. There also was a great deal of stress placed on dieting for aesthetic or health reasons.⁸

Some anorexics and bulimics have been reported to take pride in their accomplishments as far as dieting goes. Losing weight and having control over their body makes them feel superior. Their pride may become so strong that they may deny the presence of an existing problem. They know the symptoms,

signs, and possibly even the outcome of these fatal diseases. However, they believe either that it is not happening to them or that death is not able to reach them.⁹

Bulimia — A Closer Look

"Bulimia robs you of being alive while you are walking around looking like you are alive. Your attention is on only when and what you are going to eat and where you are going to throw up."³

The bulimic patient has a tendency to ingest foods that are high in calories such as bread, candy and ice cream.^{6,8} Bulimic episodes usually occur between one and 18 times a week.⁴ The victim's whole day is planned on her binge and she attacks her food savagely, ripping and tearing open containers using a knife, fork or her hands.¹ Binging brings on feelings of guilt, loss of control and remorse.

The person restores her feelings of control over her body by vomiting or perhaps using diuretics or laxatives.^{8,14}

Reports and studies have shown that the bulimic patient fears being discovered and as a result, rejected because of her disease. She always needs and desires constant approval. For this reason, her vomiting will most likely take place in her own home, away from family and friends.¹

The vomiting itself may be initiated with the use of a toothbrush, a comb, or a stick – the most common instigator being the person's fingers. A dental hygienist may notice callouses or unusual scars on the victim's fingers as a result of the repeated friction against their teeth. Nearly all bulimics vomit once a month – most vomit daily.³ Because of the frequent vomiting episodes, there may be complaints regarding gastrointestinal upsets such as heartburn and cramps.²

Often the bulimic patient demands such high standards of herself and expects the best from herself that to seek help would be admitting a weakness. As a dental health professional, the hygienist must assure the patient that it is not a sign of failure to seek professional guidance.³

Anorexia – A Closer Look

In some cases, it may be easier to detect a suspected anorectic patient as opposed to a bulimic patient.⁹ In fact, the bulimic woman may often go unnoticed because she does not look like she is suffering. Often she appears to be the picture of health. On the other hand, the anorectic often appears frail and in distress. Her skin is dry, she may suffer from a loss of hair. The anorectic will frequently experience difficulty sitting for long periods of time because she lacks fat or cushioning. Bones may be seen, but this does not alarm the person as often she takes pride in the fact that another bone is showing.^{8,3,13}

The anorectic views others in normal proportions and in a normal perspective but sees herself as fat – maybe even obese when in reality she is turning into a dangerously underweight person.^{8,3,13,9} She may insist that she is "too fat", her thighs are "too heavy", or her jeans "too tight". To keep her weight down, the anorectic may exercise fanatically and also jog, swim and so forth.⁹

If approached about her potential condition, she may insist that "nothing is wrong" thereby denying the seriousness of her illness.

It is not uncommon for the anorectic to be very knowledgeable about her disease. She may even know the symptoms and often the outcome of them. However, she may or may not be aware of why she continues to starve herself. In actuality, the anorectic is afraid of losing control of her body. As some anorexics view their outcome, they see possible anxiety and death

either way. They know that if they do not eat they will die, but they also fear obesity.⁴ To them being fat is a fate worse than death.

While the bulimic concentrates on food with high caloric content, the anorectic chooses proteins and salads thereby reducing fat and carbohydrate content. The reason for this is the woman is so worried and fearful about gaining weight that she will refrain from any type of food that is any way fattening.

Nutritional Care of Anorectic and Bulimic Patients

Anorectics

The first step in nutritional care involved in an anorectic patient is attitude change. The person must change their ideas about food. Their diet should be made up of foods acceptable to the patient and ideally should be moderate in protein, carbohydrate and fat. The ultimate goal is to increase the dietary intake gradually and to decrease the energy output so that a positive balance is achieved. It would be extremely beneficial to help the patient reach and maintain a goal weight. A suggested weight gain goal could be ½ a pound per day.

As a result of constant starvation, the anorectic patient's body loses vital body minerals. These must be added back into the body to maintain a balance. Potassium is one of those very important supplements that should be added to the diet.¹³

If these weight gaining goals are achieved by means of hospitalization due to physical state deterioration, then care following hospitalization is equally important.¹¹

Long term nutritional counselling is imperative to enable the patient to maintain their weight gain. Proper attitudes regarding nutrition need to be instilled and maintained within their lifestyles to enable them to

leave their eating disorders behind.¹¹

Bulimics

As previously mentioned, the bulimics often appear normal and healthy. Basic nutritional counselling involved with the bulimics include changing or altering their attitudes about food. The bulimic person's ideas about weight and food clearly need to be assessed and their beliefs replaced. While the person's attitude about food and its nutritional value changes so therefore will her desire to overeat and vomit.¹¹

The Dental Hygienist and the Oral Manifestations of Anorexia and Bulimia

Anorexia Nervosa

Clinical signs of anorexia vary and may be confused with other manifestations. Most of the signs related to vitamin deficiency are often associated with anorexia.⁹

This particular eating disorder may have an effect on salivary glands. While performing an extra-oral examination and moving closer to the oral cavity, the operator may notice that the lips appear inflamed or cracked (cheilosis). Desquamation may also be noted. Changes in the tongue are often seen in suspected anorectic victims. These changes include ulcerations, desquamation of the filiform papillae and a painful tongue (glossodynia).⁹

After observing the gingiva, the hygienist will possibly see ulcerations, excessive bleeding, inflammation – often symptoms similar to those associated with Acute Necrotizing Ulcerative Gingivitis.⁹

There may also be an increase in the amount of the saliva. As a result of this, the dental professional will find a definite decrease in the caries rate of anorectics.

Bulimia

As previously stated, anorexia and bulimia are often correlated with each other and therefore some of the manifestations mentioned earlier with anorexia will also be noted with bulimia.

The bulimic patient will often display an enlargement of the parotid and submandibular glands. The cause of salivary gland enlargement is unknown but has also been reported in cases of malnutrition.¹ Occasionally, xerostomia or dry mouth accompanies submandibular gland enlargement and results in a decreased salivary flow which in turn increases the caries rate.³ There may also be an increase in the caries rate due to high carbohydrate intake and poor nutrition.³ In addition, it is not uncommon to note a sore throat and burning tongue.⁸

During an inspection of the oral mucosa, the hygienist may notice erythema or soreness of the gingiva, the palate, or the pharynx area.^{9,5} This redness is induced by the frequent vomiting episodes.⁵

Cheilosis is another frequently occurring characteristic with bulimia. The drying and cracking of the lips is most frequently associated with a vitamin deficiency or as a result of the pH of the gastric contents.

The most distinguishing characteristic of the bulimic who utilizes self-induced vomiting for a period of more than two years is enamel erosion or perimolysis.^{10,1} As a result of the purging episodes, the patient allows her teeth to be coated with hydrochloric acid present in the vomit. This acid is retained in the filiform papillae and mechanically polishes the teeth.

The presence of the acid on the teeth eventually produces lingual erosion. In addition, the erosion will deteriorate the incisal edges which may result in chipping away of the enamel, dentin sensitivity and as a subsequent loss of enamel, an anterior open bite.^{1,3,9,5}

Moving posteriorly in the maxillary arch, the operator will most likely see a flattening and rounding of the cusps – once again, a result of enamel erosion.² If there are amalgam restorations present, they will appear elevated due to the deterioration of the enamel around the restoration.^{2,13}

To facilitate the hygienist in an early recognition of bulimia, it is important to note the five oral signs of bulimia – enamel erosion, salivary gland enlargement, xerostomia, oral mucosal erythema and cheilosis.

Dental Treatment and the Dental Hygienist

The dental hygienist is in a very important position if and when it comes to detecting signs of anorexia or bulimia. Because patients have routine prophylaxis treatments, the victim may associate with the hygienist more frequently than with their own physician. Therefore, it is important for the dental health professional to be aware of any changes in physical appearance and/or changes in the oral cavity.¹³

If the patient has indeed accepted counselling, treatment may begin.⁶

First, daily application of 0.4% stannous fluoride gel can be applied to increase remineralization of enamel and to decrease the sensitivity of the dentin. The patient may also benefit from a daily application of a fluoride mouthrinse instead of an abrasive dentifrice.⁴ The ingestion of antacid chewing tablets will help to minimize the destructiveness of the gastric acid. In addition, if the patient is suffering from other deficiencies in the form of cheilosis of bleeding gingiva, vitamin supplements may be suggested.⁶

Conclusion

Anorexia nervosa and bulimia are both very serious potential killers that have become more prevalent in recent years. As dental health professionals, it is our responsibility to convey to society that far too much emphasis is being placed on physical appearance. After all, shouldn't the emphasis be placed on being healthy instead of being thin.⁷ ■

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SELF ASSESSMENT TEST DENTAL MATERIALS

- 1 Care should be taken not to inhale alginate particles because:
- the powder contains a silica component that has been classified as a health hazard.
 - the fine particles of the alginate powder may produce a severe allergy.
 - the alginate powder can accumulate in the throat and cause an obstruction.
 - the fluoride from the impression material can elevate body fluoride levels.

- 2 Insufficient spatulation of alginate will have the following effect:
- the set impression material will contain air bubbles and voids.
 - incompatibility with gypsum will increase by 50%.
 - ingredients will not dissolve sufficiently causing an irregular chemical reaction.
 - the setting time of the impression material will increase by 50%.

- 3 The foaming and cleansing ability of a dentifrice is provided by:
- the humectant
 - the detergent
 - the binding agent
 - the preservative.

- 4 Dentifrices contain _____ water.
- 20 to 30 percent
 - 1 to 5 percent
 - 50 to 60 percent
 - 10 to 15 percent

- 5 The resin used for mouth guards must have the properties of _____ and _____.
- toughness and high compressive strength.
 - elasticity and firmness.
 - high elastic modulus and good compressive strength.
 - resilience and toughness.

- 6 The most current commercial pit and fissure sealants are:
- unfilled or lightly filled BISGMA resin.
 - unfilled or lightly filled methyl methacrylate resin.
 - unfilled cyanoacrylate materials.
 - unfilled BISGMA resin.
 - unfilled or lightly filled polyurethane resin.

- 7 Pit and fissure sealants are polymerized by:
- autopolymerization or chemical curing.
 - light curing processes.
 - both light curing and chemical curing systems.
 - the application of heat and light curing systems.

- 8 Non eugenol periodontal dressing when compared to eugenol type periodontal dressing has the advantage of _____.
- greater antibacterial properties.
 - a more pleasant taste.
 - better retention interproximally.
 - a longer shelf life.

- 9 One disadvantage of a zinc oxide-eugenol periodontal dressing is that it _____.
- causes a sloughing of the epithelial tissue.
 - causes ulcers in the lining mucosa of the oral cavity.
 - promotes bacterial growth in areas surrounding the dressing.
 - causes a stinging sensation to the soft tissues.

- 10 Excessive heat generated during polishing of amalgam filling will have the following effect on the filling:
- permit the release of mercury to the surface.
 - produce a more lasting shine and less tarnish.
 - strengthen the restoration through a stronger metal latticework.
 - reduce the scratch marks and produce a better finish.

Anne Bosy, R.D.H., B.Sc.
George Brown College
Toronto, Ontario

Answers to Self Assessment Test:

- a. D can also be true but only if you swallow a certain amount of the alginate (as a patient can during impression taking).
- c
- b
- a
- c
- d
- a
- c
- a
- a

C.D.H.A. DIRECTORY

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All officials may be contacted through:

C.D.H.A.
1320 Carling Ave.
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K1Z 7K9

ATTENTION HYGIENISTS

Do you have an artistic flair?
Do you knit, watercolour, do ceramics? ...

In other words do you create beautiful things which you would like to show off and perhaps even sell?

We have space for you in the Marketplace at the 11th International Symposium on Dental Hygiene, June 28 to 29, 1989, Ottawa, Ontario

Please contact:
Dale Scanlan
53 Ariel Court
Nepean, Ontario
K2H 8J1



OTTAWA '89
11th INTERNATIONAL
SYMPOSIUM ON
DENTAL HYGIENE
JUNE 28 - JULY 1, 1989

FINANCIAL STATEMENTS

*Financial
Statements
April 30, 1987*

CANADIAN DENTAL HYGIENISTS' ASSOCIATION L'ASSOCIATION CANADIENNE DES HYGIENISTES DENTAIRES OTTAWA, CANADA

Mary Ellen Morris
CHARTERED ACCOUNTANT
BOX 251
MANOTICK, ONTARIO
K0A 2H0
TEL: 692-2553

- AUDITOR'S REPORT -

To the members of
Canadian Dental Hygienists' Association
L'Association Canadienne des Hygienistes Dentaires

I have examined the balance sheet as at April 30, 1987 and the statement of income and expense for the year then ended.

My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as I considered necessary in the circumstances, except as outlined in the following paragraph.

As is the case with most organizations which receive funds by membership fees and contributions, verification of receipt was limited to accounting for amounts as recorded. Financial results of projects and committee activities are reported upon completion only and thus are not available for audit until the year in which they are completed.

In my opinion, except for the effect of any adjustments which might have been required had I been able to satisfy myself with respect to the revenue described in the preceding paragraph these financial statements present fairly the financial position of the Association at April 30, 1987 and the results of its operations for the year then ended in accordance with generally accepted accounting principles applied except for the change from the cash to accrual method of reporting as explained in Note 1a to the financial statements, on a basis consistent with the preceding year.

Mary Ellen Morris
CHARTERED ACCOUNTANT

CANADIAN DENTAL HYGIENISTS' ASSOCIATION L'ASSOCIATION CANADIENNE DES HYGIENISTES DENTAIRES BALANCE SHEET As at April 30, 1987

ASSETS

CURRENT

Cash	\$92,156
Treasury bills - at cost (Note 2)	100,375
Accounts receivable	10,437
Advances	<u>1,509</u>
	\$204,477

LIABILITIES AND MEMBERS' EQUITY

CURRENT

Accounts payable and accrued liabilities	\$44,405
Deferred annual membership dues	<u>70,088</u>
	\$114,493

MEMBERS' EQUITY

Balance, beginning of year (Note 1)	124,643
Less: Net loss for the year	<u>(34,659)</u>
Balance, end of year	<u>89,984</u>
	\$204,477

National portion of membership fees (Note 3)	\$145,194
Provincial cost sharing	19,003
Interest	14,602
Fees - corporate mailings	2,912
Insurance rebate	4,250
Convention profit	2,784
Posters	1,285
Repayment - convention advance	2,162
The Canadian Dental Hygienists	36,781
Grants	1,600
Miscellaneous	<u>994</u>
	\$231,567

5.

CANADIAN DENTAL HYGIENISTS' ASSOCIATION
L'ASSOCIATION CANADIENNE DES HYGIENISTES DENTAIRE
STATEMENT OF INCOME AND EXPENSES
For the year ended April 30, 1987

INCOME - forward

\$231,567

EXPENSES

\$52,923

Salaries and benefits 17,938
 Membership campaign and processing

Central office administration 7,580
 Printing and photocopying 6,466
 Postage 4,535
 Office equipment and supplies 3,700
 Rent 7,077
 Telephone 2,350
 Professional fees 335
 Subscriptions 143
 Insurance 341
 Miscellaneous

32,527

Travel 23,450
 Annual general meeting of the board 27,228
 Convention 1,537
 Committees 22,790
 National Survey 25,000

Donations and honoraria 12,505
 Donations 1,500
 Honoraria

14,005
 48,828

266,226

"The Canadian Dental Hygienist"

\$(34,659)

NET LOSS FOR THE YEAR (NOTE 1)

6.

CANADIAN DENTAL HYGIENISTS' ASSOCIATION
L'ASSOCIATION CANADIENNE DES HYGIENISTES DENTAIRE
NOTES TO FINANCIAL STATEMENTS
APRIL 30, 1987

1) SIGNIFICANT ACCOUNTING POLICIES

a) At the annual meeting in August, 1986 the Association approved a change from the cash basis to the accrual method of accounting effective with the 1987 fiscal year. This change has been applied retroactively and the opening members' equity for the year has been restated to reflect the adjustments to the opening balance sheet as indicated below.

Balance of funds at end of previous year \$187,068.

Prior period adjustments:
 Accounts receivable 22,408.
 Accounts payable (12,821.)
 Deferred membership dues (72,012.)
 Opening members' equity \$124,643.

Had the Association continued to report on the cash basis the excess of receipts over disbursements would have been \$5,464.

b) The Association follows generally accepted accounting principles in the preparation of its financial statements except as outlined below where the disclosed basis of accounting is considered to be appropriate.

c) Fixed Assets

Office equipment and furniture are expensed entirely in the year of purchase.

d) Projects and Committees

Committees receiving funds for specific projects will be subject to audit at the completion of the project. Funds allocated to these committees are reflected in expense in the year the funds are advanced.

Continued....

7.

CANADIAN DENTAL HYGIENISTS' ASSOCIATION
L'ASSOCIATION CANADIENNE DES HYGIENISTES DENTAIRE
NOTES TO FINANCIAL STATEMENTS
APRIL 30, 1987

2) TREASURY BILLS

The Treasury bills in the amount of \$100,375 are made up as follows:

Purchase date	Cost	Date of Maturity	Interest Rate	Value at Maturity
March/87	\$100,375	May 1, 1987		\$101,000

3) MEMBERSHIP FEES

Membership fees have been reduced by \$12,249 which represents a refund of group liability insurance premiums previously assessed.

4) COMMITMENTS

The Association operates from leased premises under the terms of a 4 year lease ending December 28th, 1988. The Association is committed to make rental payments of \$3600 per year plus a proportionate share of operating costs. The Association also rents office equipment and is committed to make the following rental payments:

Photocopier 65 month lease ending April 30, 1990 at a cost of \$1746 per year.
 Mailing equipment 60 month lease ending February 28, 1992 at a cost of \$2060 per year.

The Association is committed to advance an additional \$25,000 to the National Survey out of 1988 revenues.

5) CONTINGENT LIABILITY

On September 1, 1985 the Association entered into an agreement with the Minister of National Health and Welfare to conduct a project entitled "Oral Health Resources for the Elderly."

Continued

8.

CANADIAN DENTAL HYGIENISTS' ASSOCIATION
L'ASSOCIATION CANADIENNE DES HYGIENISTES DENTAIRE
NOTES TO FINANCIAL STATEMENTS
APRIL 30, 1987

The Ministry proposes to fund this project to a maximum of \$95,000 during the two year period ending September 1, 1987. Although the project is carried out under the auspices of the Association the funds are administered independently of the Association's general operations. The Association representative responsible for the project reports directly to the Ministry.

Since any unexpended funds must be returned upon completion or termination of the project the related receipts, disbursements and balance of funds have not been reflected in these financial statements.

If it were determined by the Ministry that any of the funds advanced had not been spent in accordance with the terms and conditions of the agreement the Association could be liable for reimbursement of these amounts from their general operating funds.

6) COMPARATIVE FIGURES

Due to the change from the cash basis to the accrual method of accounting, comparison of the 1986 figures with the current year would not be meaningful, therefore the 1986 figures have not been presented.

"Super Glue" for Surgeons

Bleeding stops instantly, a skin graft can be stuck in place, when this new surgical "glue" is used.

A surgical "glue" that stops bleeding instantly by sealing the tissue is being tested at the University of Alberta by dental surgeon Wayne Raborn and plastic surgeon Jim Beauchene.

The results could have major benefits for people with a variety of health problems (including high blood pressure) and "bleeders" who need dental surgery, and for patients undergoing skin grafts.

The "glue", Tisseel, is made from pooled human fibrinogen. It is adhesive, hemostatic, and can be sprayed on the wound area or squeezed out of a syringe. A Tisseel clot is less susceptible to infection than a normal clot, and within two weeks is absorbed into the body. It's been used in Europe for several years, and has been accepted into Canada on the basis of the European experience, but is not available in the U.S.

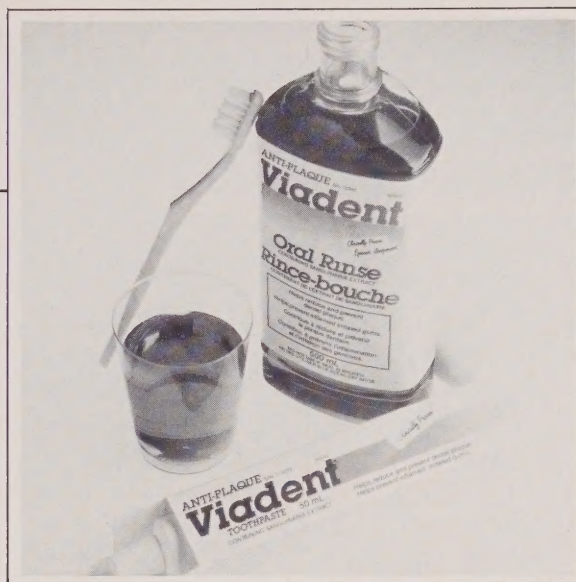
Now Raborn and Beauchene are running clinical trials to make detailed studies of possible uses in their fields.

In the first part of Dr. Raborn's two-phase trial, he is using the material during dental surgery on people with cardiac and stroke problems; kidney troubles or kidney transplants; and on alcoholics.

When tests are concluded (probably by the end of June) Beauchene will have data to answer a number of questions.

For more information:

Wayne Raborn, Dentistry
(403) 432-6854
Jim Beauchene, Surgery
(403) 432-6979



New Toothpaste Controls Plaque

TORONTO - During the spring (May 11-12, 1987) Ontario Dental Association meetings at the Sheraton Centre in Toronto, Frank W. Horner Inc. launched Anti-Plaque VIADENT Toothpaste and Anti-Plaque VIADENT Oral Rinse. This VIADENT system is the first Canadian over-the-counter combination to contain a proven plaque-fighting active ingredient.

Sanguinaria, the active-ingredient in the VIADENT system, is a natural compound, extracted from the roots of the bloodroot plant. It has been used for over 150 years in cough syrups and other pharmaceutical products, but only recently has it been proven that sanguinaria, in VIADENT toothpaste and oral rinse, helps reduce plaque and inhibits its return.

Over 25 clinical studies have shown that sanguinaria, in VIADENT, chemically combines with plaque, where it inhibits growth of 98% of the bacterial isolates known to be related to periodontal disease. VIADENT action is prolonged; its activity continues for four hours or more.

Regular use of this unique anti-plaque toothpaste and oral rinse helps gingivitis, and eliminates problems with bad breath. After using VIADENT products for one week, most people notice that their teeth have a smoother, cleaner feel - especially first thing in the morning.

Other toothpastes available to Canadian consumers remove plaque with an abrasive action, but until VIADENT's launch in this country, none were able to prevent its rapid return.

Research studies have shown that VIADENT oral rinse is highly effective in reducing plaque bacteria, yet it is low in alcohol and does not destroy the normal microorganisms in a healthy mouth.

For further information contact Jane Hope 416-593-5180 or Eleanor Brownridge 519-657-2258.

CLASSIFIEDS

Hygienist

Two Dental Hygienists openings available in a team oriented progressive dental office. To be considered you must have a successful hygiene background plus a total commitment to professionalism and personal excellence. Our office recognizes and rewards individual initiative and achievement. Salary is open. Send resume to Park Ave. Dental Clinic, suite 101-4619 Park Ave. Terrace, B.C. V8G 1V5.

Dental Hygienist

Hygienist for modern family practise in the Comox Valley (Courtenay), home of excellent ski facilities and water sports. This can be a full or part time position offering pleasant conditions and independence.

Dr. D. Odegaard
747 Fitzgerald Ave.
Courtenay, B.C.
V9N 2R4
(604) 338-6633

British Columbia - Nanaimo

Dental Hygienist Required

Full or Part Time position available in modern preventive general practice. Large group practice provides pleasant working conditions and opportunity for growth. Salary negotiable with experience.

Send Resume to:
Northbrook Dental Clinic
#16-2159 Departure Bay Road
Nanaimo, B.C.
V9S 3V5
Phone collect: (604) 758-1168
758-2413

St. Albert - Alberta

Full and part-time dental hygienists are required for a community preventive dental team with the Sturgeon Health Unit, located 5 kms. north of Edmonton. Working with pre-school and school age population, duties include education promotion in schools and clinics, prophylaxis, inspection/referral, and other interesting community dental projects.

QUALIFICATIONS: Graduate from an accredited dental hygiene program. A valid driver's license is required.

Also required:

Senior Dental Hygienist to co-ordinate and manage the community preventive dental program. The incumbent must be a graduate in dental hygiene from an accredited institution and be eligible to practice in the province of Alberta. Good leadership and management qualities plus three years of supervisory experience are required for this management

position. Salary commensurate with experience and qualifications in the range of \$30,408 to \$37,536 per annum.

Applications/resumes should be submitted to:

Janet Finstad
Personnel Officer
Sturgeon Health Unit
Box 174
St. Albert, Alberta
T8N 1N3
PHONE: (403) 459-6671

Dental Hygienist

Required for family-oriented preventive practice in Cranbrook, B.C. Full or part time available.

Please contact

Dr. Perry LeRose
#201-44-12th Ave. S.
CRANBROOK, B.C. V1C 2R7
or call (604) 426-5010 Collect

***The Eastern Ontario Health Unit
is presently accepting applications
for temporary full-time***

DENTAL HYGIENISTS

Applicants must be registered as members in good standing with the Royal College of Dental Surgeons of Ontario together with successful completion of a diploma course in dental hygiene from a recognized College. Good communication skills are required, preferably in both official languages. Previous experience in a private dental office or dental public health involvement would be considered an asset.

Please reply in confidence to:

**Personnel Department
Eastern Ontario Health Unit
1000 Pitt Street
Cornwall, Ontario
K6J 3S5**



The Canadian Dental
Hygienists Association
L'Association Canadienne
des Hygiénistes Dentaires

Dianne Tivy
Business Manager
1530 Carling Ave.
Ottawa, Ont. K1Z 7K9
(613) 728-8730

Careers in Dental Hygiene

What is a Dental Hygienist?

A dental hygienist is a licensed preventive health professional who provides educational, clinical and therapeutic services and promotes total health through the maintenance of optimal oral health.



Facts

about Dental Hygienists

1 Dental hygienists are licensed health care professionals concerned primarily with the prevention of dental disease. Hygienists are responsible for providing education and treatment that helps prevent periodontal disease (gum disease) and dental caries (cavities). As members of the dental team, hygienists work with patients to achieve and maintain optimum oral health.

2 The first dental hygiene program was established in Canada in 1951. From the first graduating class of less than 10, the number of hygienists has grown rapidly over the past years so that today there are approximately 6000 dental hygienists across the country.

3 The educational requirements for dental hygienists, a minimum of 2 years study, include senior matriculation, basic sciences (chemistry, biology, nutrition, anatomy, physiology) and communications. Students develop specific clinical skills to provide preventive and health services to the public. Dental hygienists are eligible to apply for provincial licensure after graduation from a recognized education program. Licensed dental hygienists work in a variety of settings, including private dental offices, public health departments, and community health centres.

4 Although dental hygiene duties vary from province to province, some of the functions routinely performed by dental hygienists include:

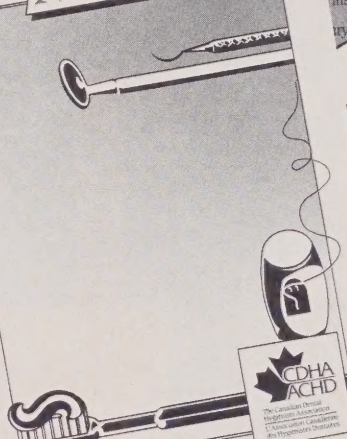
- examining and charting oral conditions
- exposing and processing dental x-rays
- removing plaque, stain, and calculus (tartar) from above and below the gumline
- administering local anaesthetic

services such as administering local anaesthetic, placing and carving filling materials and additional periodontal procedures.

5 Dental hygienists work in a variety of practice settings including:

- private dental offices
- university clinics
- public health departments
- community health centres

NOTES



CDHA MEMBERS ONLY ORDER FORM

Please Print

Send to: _____

Street: _____ City: _____

Province: _____ Postal Code: _____

FACT SHEETS (8½" × 11")

- ☐ English ☐ French
50 sheets @ \$ 5.00 ☐
100 sheets @ \$10.00 ☐

MEMO PADS (4" × 6")

- 50 sheets @ \$ 2.00 ☐
100 sheets @ \$ 4.00 ☐
1,000 sheets @ \$25.00 ☐

CAREER PAMPHLET (English only)

- 10 pamphlets @ \$ 2.00 ☐
50 pamphlets @ \$10.00 ☐
100 pamphlets @ \$20.00 ☐

BUSINESS CARDS 100 cards @ \$20.00 ☐ to appear on card:

(maximum of 5 lines, 25 characters per line.)

Total enclosed: \$ _____

PLEASE ENCLOSE CHEQUE OR
MONEY ORDER PAYABLE TO C.D.H.A.

Vancouver, B.C. Permanent, Full-Time

Help! Pregnancy has struck!
Lucy needs time out!

If you are interested in enhancing
our unique dental practice with
your individual skills and talents
we'd like to talk with you.

Call David Speirs
(604) 874-3404
222-1586

or Lucy MacArthur
(604) 874-3404
987-1232

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Fifty (50) words or less, per ad.
minimum \$20.00. Each
additional word 50¢. Payment
must accompany order or ad
will not be placed. Closing date
for receipt of copy is first of the
month preceding month of
publication — February 1 for
Spring issue. May 1 for
Summer issue. August 1 for
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rates based on ½ page (\$275)
and ¼ page (\$200) only. Non
cancellable after closing date.
No agency commissions on
classified advertising. Ads will
not be taken by telephone.
Direct advertising copy, with
cheque, to:

Canadian Dental
Hygienists' Association
Classified Advertising
1320 Carling Avenue
Ottawa, Ontario
K1Z 7K9

*Join an innovative health sciences
team in a provincial community college
as:*

DENTAL HYGIENE INSTRUCTORS

As a successful candidate you will be responsible for
instruction in a new Dental Hygiene Program. Three full-
time positions are available as we progress to the second
year of the program. (First class enrolled September 1, 1987).
Annual first year enrollment is 20 students.

As a qualified applicant you will be a licensed Dental
Hygienist, or eligible for licensure in B.C. with a background
of recent practice. Teaching experience and a Baccalaureate
degree will give you preference for the position. As a
successful applicant you will be instructing in a new dental
programs facility scheduled to open in January 1988. This
facility will have 20 fully equipped operations and 4 x-ray
rooms, as well as the latest in equipment and resources to
support the program.

Duties will include classroom, preclinical and clinical
teaching and curriculum development as necessary with a
new program.

The salary is commensurate with your experience and
qualifications but will fall within an annual salary range of
\$27,913 to \$44,316. An excellent fringe benefit package and
relocation assistance is available to you.

Your Health Sciences Team is an integral part of the College
of New Caledonia — a regional college serving the academic,
technical and vocational training needs of its regional
population which totals in excess of 120,000. You are
centered in Prince George, B.C., the largest city outside the
Lower Mainland and you are an equal distance from
Vancouver, Edmonton and Calgary.

Review of applications will begin immediately and continue
until positions are filled.

**PLEASE CALL COLLECT TO DISCUSS YOUR
APPLICATION WITH:**

Patricia Noble,
Department Head, Dental Programs,
Health and Social Sciences Division

at (604) 562-2131

Or write to the address below:

The College of New Caledonia,
3330 - 22nd Avenue,
Prince George, B.C.
V2M 4V1

(Attention: Patricia Noble)

PREACH WHAT YOU PRACTICE



Recommending a therapeutic oral rinse to fight plaque and prevent gingivitis is not the exception. It's the rule. So a complete oral hygiene program should include the use of Listerine Antiseptic.

Clinical studies show that using Listerine Antiseptic twice a day reduces plaque build-up from 20-50% compared to brushing alone.^{2,3,4} Studies also confirm that

it significantly reduces and helps prevent gingivitis as compared with vehicle and water control rinse scores.¹

So in addition to regular check-ups, brushing and flossing, recommend Listerine Antiseptic to your patients. When it comes to reducing plaque and preventing gingivitis, make Listerine Antiseptic the golden rule.

References: **1.** LAMSTER, I., et al.: Clin. Prev. Dent., 6:12 (1983). **2.** MENAKER, L. et al.: Ala. J. Med. Sci., 16:71 (1979). **3.** ROSS, N.M., et al.: Warner-Lambert research report #955-0875 (1976). **4.** YANKELL, S.L., et al.: Warner-Lambert research report #955-0893 (1976).

Active ingredients: Alcohol 21.9% w/v, Eucalyptol 0.091% w/v, Thymol 0.063% w/v, Menthol 0.42% w/v.
Warner-Lambert Canada Inc.

PAAB
CCPP

LISTERINE
AN EFFECTIVE TOOL AGAINST
PLAQUE AND GINGIVITIS.

Hygienists

We value the services of a hygienist and are willing to pay handsomely for the right person. How would you like to live in the sunniest place in B.C. and make \$200-\$250 a day working in a modern dental office with a team dedicated to health and fine dentistry? If this sounds interesting please call Dr. Jeff Williams 604-489-4731 Bus or 604-426-5456 Res.

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Dental Hygienists

Alberta East Central Health Unit has openings for the following positions:

1. A full-time or part-time Dental Hygienist for the Camrose office.
2. A full-time or part-time Dental Hygienist for the Stettler office.

Excellent opportunities for individuals looking for a change from traditional practise and who enjoy working with children.

For further information or applications contact:

Heather McElroy
Senior Dental Hygienist
 Box 550
 Stettler, Alberta T0C 2L0
 (403) 742-3326



City of Toronto

Dental Hygienist (Two Permanent Positions) (One Temporary Position 21 hrs. week) Department of Public Health

A Dental Hygienist teaches dental health, nutrition and oral hygiene and conducts screening for the detection of dental defects of children and seniors in classrooms, clinics and community locations. The successful candidate will have experience in practice; the ability to work in teams with staff, clients and the community; and have good technical skills. Applicants must be a graduate of recognized dental hygiene program and be licensed to practise in Ontario.

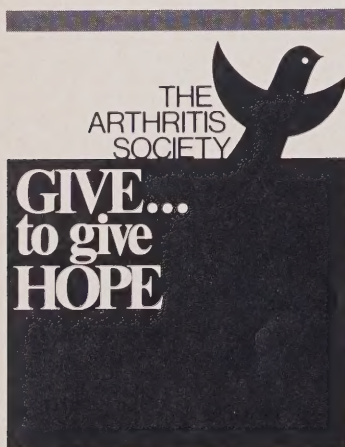
Salary range: \$31,826 - \$35,992 per annum.

The City of Toronto offers excellent fringe benefits. Salary will be commensurate with qualifications and experience. Submit resume in confidence quoting **File No. 87-083** by **Friday, November 27, 1987** to:

Keith Fielding, Director
 Personnel Services Division
 Management Services Department
 2nd Floor, West Entrance, City Hall
 Toronto, Ontario M5H 2N2



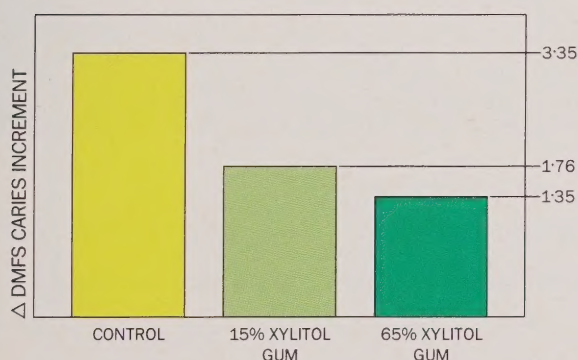
Equal Opportunity Employment



Now, new studies prove that Trident with **xylitol** helps fight cavities.

Xylitol is a naturally-occurring sweetening agent found in plants, vegetables, even the human body. For years, scientists have suspected that this natural substance may play an active role in cavity prevention. Now, new clinical studies prove it.

Independent trials¹ conducted by international



This one-year study conducted by the Montreal General Hospital and the University of Montreal, Department of Preventive and Community Dentistry, on 433 eight and nine year old Montreal children clearly demonstrates a protective effect of xylitol-containing chewing gum in a school caries preventive programme. (The control group had a normal diet and preventive programme.)

institutions such as the World Health Organization have substantiated existing evidence, gathered through concentrated research over the last ten years, that indicates xylitol cannot be metabolized by decay-causing microflora in the oral cavity.

Trident Sugarless Gum, which contains xylitol², is now being recognized as more than just a harmless treat. When used at least twice a day, it has been proven to be an important adjunct to the regular oral hygiene programme of brushing, flossing, rinsing, and having fluoride treatments plus biannual dental check-ups.

Now, you can recommend Trident as an effective way to reduce the threat of acidogenic action after carbohydrate snacking, especially for young, caries-prone patients. And, the great new taste of Trident means that patient compliance is assured.

Trident. More than just a treat.



MORE THAN JUST A TREAT

¹ Reg. T.M. Warner-Lambert Company, Adams Brands Mfg. Auth. User.

² The Finnish Xylitol Study, 1982-1985. The French Polynesian WHO Study, 1979. The WHO Hungarian Study, 1981-1984. The Montreal Chewing Gum Study, 1987. Case studies available upon request.

³ Trident Peppermint, Cinnamon, Freshmint, and Fruit flavours only.

TWO RELIABLE ASSISTANTS



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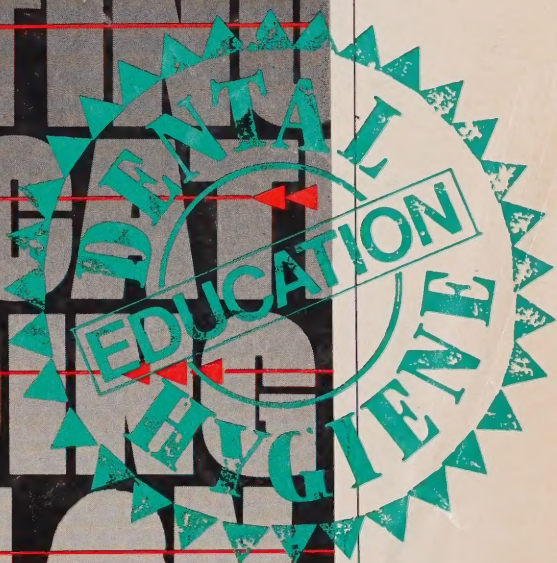
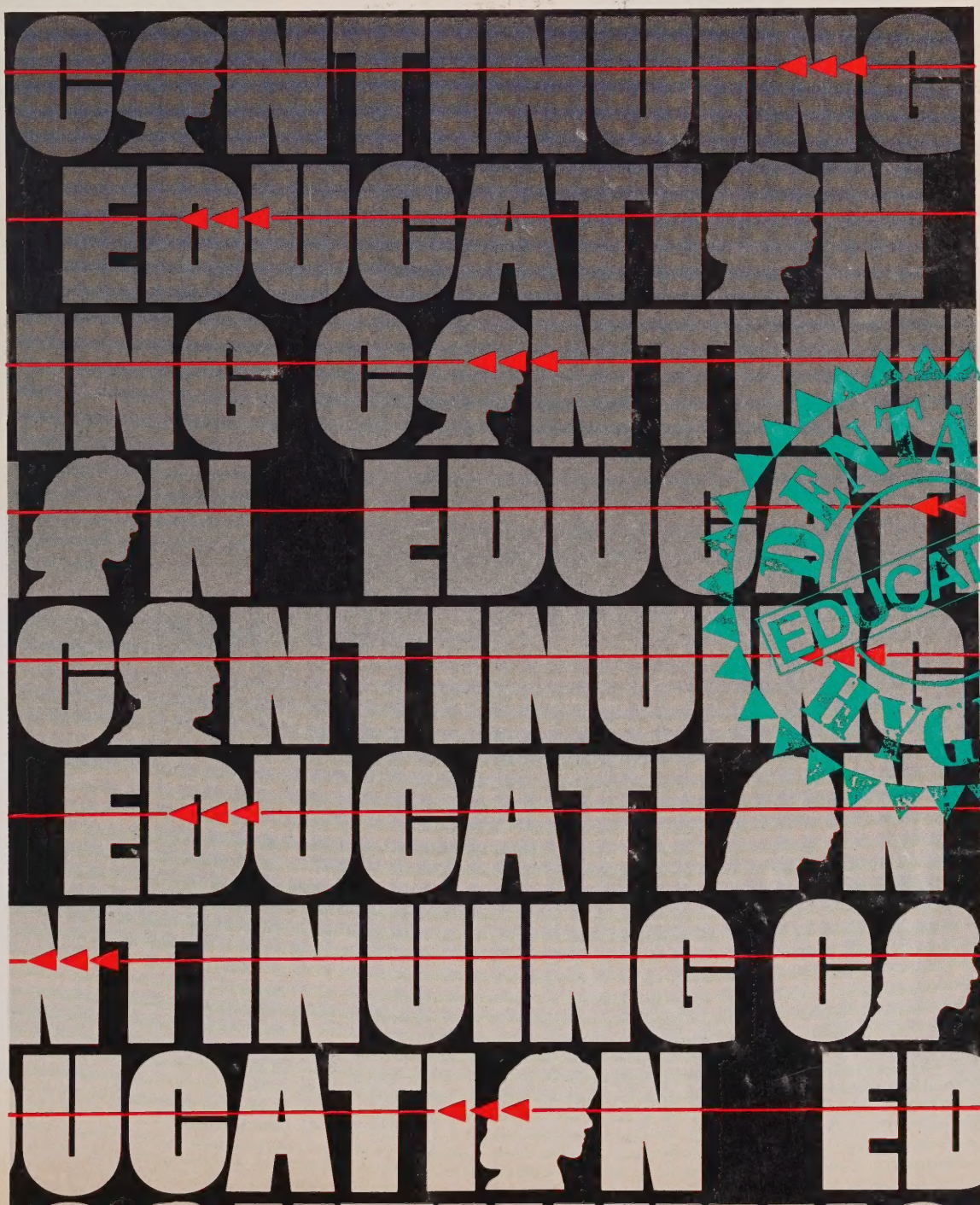
"Crest contains sodium fluoride which is, in our opinion, an effective decay preventive agent, and is of significant value when used in a conscientiously applied program of oral hygiene and regular professional care." CANADIAN DENTAL ASSOCIATION

JUN 14 1988

PROBE

volume 22, no. 1

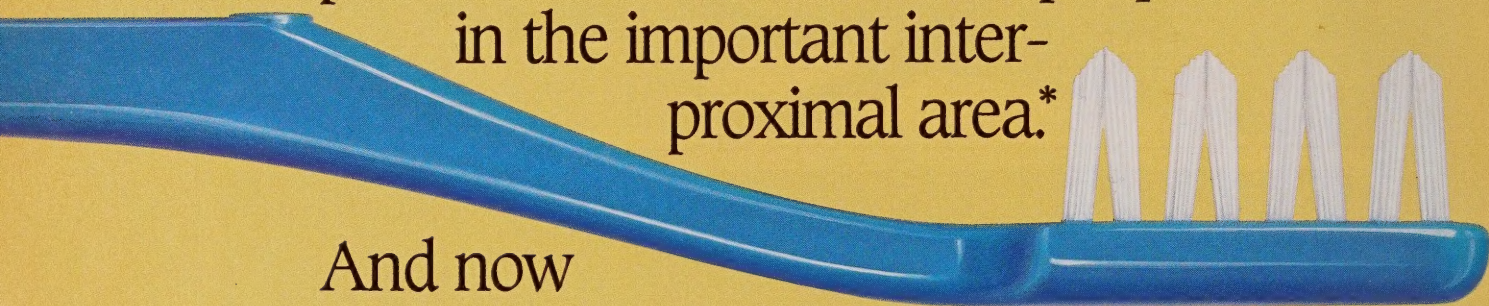
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*"Evaluating cleaning efficiency of different toothbrush designs and textures". Sam L. Yankell et al., University of Pennsylvania, J. Soc. Cosmet. Chem. (May/June, 1983)
"Access to interproximal tooth surfaces by different bristle designs and stiffness of toothbrushes." Per Nygaard-Ostby et al., Jordan, Oslo, Scand. J. Dent. Res. 1979.

"An in vitro study of the relative effectiveness of toothbrush cleaning/coverage." Sam. L. Yankell, University of Pennsylvania, J. Dent. Res. 1979.
"Role of brushing technique and toothbrush design in plaque removal." Axel Bergenholtz et al., University of Umea, Scand. J. Dent. Res. 1984.

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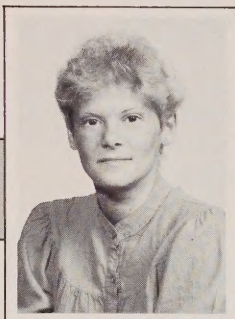
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PRESIDENT'S MESSAGE



Ellen Brownstone
B.A., R.D.H., M.Ed.

"A Perspective on Dental Hygiene"

Next year the Canadian Dental Hygienists' Association will celebrate a quarter century of organized Dental Hygiene in Canada. The C.D.H.A. has evolved from four founding constituent members with a "vision" of the need for Dental Hygiene to be represented in an organized and collective fashion, to a nationally defined professional association with a charted future and mission.

My position in C.D.H.A. has afforded me the opportunity to travel Canada from coast-to-coast, listening to the viewpoints, concerns and expressed needs of hygienists in all regions of the country. The message rings clear. Canadian dental hygienists perceive themselves to be emerging professionals. As licensed providers of oral health care with formal educational qualifications, demonstrated evidence of their importance in the provision of dental health care and the obligation to be accountable to the public and the profession, dental hygienists have earned the right to be recognized as emerging professionals. Unfortunately, this viewpoint is not shared by all; namely certain components of organized dentistry.

I would suggest that such opposing viewpoints are in part based on a fear of altering the status quo with respect to traditional dental practices, fear that recognition of hygienists as true colleagues would impose threats on traditional roles, fear that Dental Hygiene will not be totally guided and controlled by the beliefs of the dental profession and a fear that in some manner the quality of care provided to patients will be compromised. Such fears exist in spite of the unquestionable and unchallengeable fact that Dentistry will remain the senior profession. Beyond these perceptions, the issues are even more complex. Dental hygiene however, acknowledges the support offered by those dental professionals who are forward-thinking and confident that dentists and hygienists can work in a mutually respectful, collaborative fashion on professional issues.

There exist ongoing attempts in certain regions of the country; sometimes by individuals and sometimes collectively, to undermine the efforts of organized dental hygiene to be recognized as responsible professionals. As professionals we have the responsibility for an active role in planning and directing our future. It is no longer appropriate to be completely dominated by another

professional group who may not always have the interests of dental hygiene foremost in their minds.

Canadian dental hygiene is represented today by established clinical practice standards, self-regulation of more than fifty percent of the dental hygiene population, a defined commitment to improving the oral health of Canadians, the current development of a quality assurance practice model, and dental hygiene research activities. These events and more substantiate the need for dental hygiene to have a voice in their destiny. ■

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E-Z Floss makes flossing easy. Plain and simple. E-Z Floss is an ideal supplement to any patient's flossing routine. Easy to use, it can travel with people on the go, help encourage children to floss more often, and assist the elderly and infirm who find conventional flossing difficult. E-Z Floss is available at most major drug retailers.



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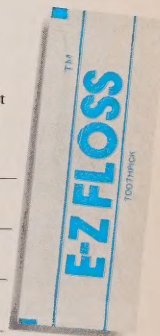
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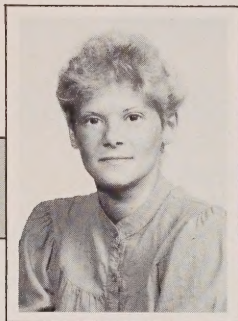
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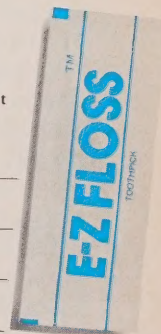
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Fran Cotton
R.D.H., B.Sc.D., M.Ed

Are We Talking!?

When was the last time you sat down and had a heart-to-heart discussion with your supervising dentist about the issues currently affecting hygienist/dentist relationships in this country? (I used the term supervising dentist because under present legislation most of us work with a dentist in some capacity or other.) I don't mean a brief scuffle in the hallway on route to your next patient, but a genuine discussion over a cup of coffee or a glass of juice, where the gloves come off and you can talk freely.

Do you really know how your dentist feels? Does s/he have an opinion? Have any of the current issues caused friction in your place of work? Are you assuming that each of you have strongly opposing views, yet have not taken the time to discuss the issues and possibly discover that your wavelengths are not that far apart?!

Dentistry and hygiene have a lot of similarities to a marriage between a man and a woman – indeed many dentist/hygienist relationships are male/female. A marriage of one doesn't work! Hygiene or dentistry alone won't work either! Each brings to the relationship special skills, knowledge and strengths. Each brings to the relationship particular points of view and special biases regarding patient care. Just

as a personal relationship grows on mutual trust and respect, so does a professional relationship. If either side mistrusts the other, the relationship will surely deteriorate.

I have found it increasingly interesting that the conflicts between hygiene and dentistry seem to be fueled by a few and that individual dentists still see the need for hygiene participation in their practices. Perhaps the dissension is over the *quality* of that participation and the degree to which hygienists are regarded as primary care providers in their own right. Occasionally there is a tendency to see dentistry as a life-long career, but hygiene as short term. We must promote hygiene as a career not only to our peers but to student candidates and to potential employers. Hygiene is a career, not a job! A career involves having some control over your destiny – that may be the major issue in question! Control over the future. Dental hygienists have a right to determine what happens to them, just as dentists have the right to determine their destiny.

Are we as a group talking to legislative agencies? Are we taking a proactive role, or are we merely reacting to decisions already made – quite often without our input! Do we perceive that we are being heard or are we afraid of speaking out?

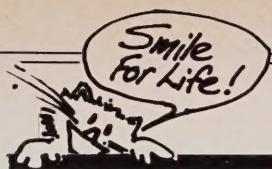
The C.D.H.A. and the provincial associations are our strong collective voice, however, as

individuals we must often take a stand and enter into our own dialogue with the decision makers. While many of us are not prepared to contact local licensing bodies or dental societies, we can open communication lines with the people we work with.

Keep these thoughts in mind when sharing that next cup of coffee:

- 1) Avoid judgements – value systems are not always the same!
- 2) Describe the situation as objectively as you can including your view of the "touchy" issues.
- 3) Seek the other's perception of the issues.
- 4) Seek agreement as to what are the facts (objectively!)
- 5) Look for alternatives that are acceptable to both parties, if possible.
- 6) Assume that the person with whom you are talking is as reasonable, intelligent and interested in attaining a solution as you are!

You may both be surprised! ■



National Dental Hygiene Week is Coming!

October 16th to the 22nd has been designated National Dental Hygiene Week by the Canadian Dental Hygienists Association. At the same time the American Dental Hygienists Association will be celebrating too. This makes N.D.H.W. a North America wide event!

Plans are being developed to provide opportunities for hygienists throughout Canada to promote the preventive message for good oral health! Frank W. Horner Inc. has very generously agreed to sponsor many of the N.D.H.W. activities such as radio spots, video releases, distribution pamphlets, organizational kits (for provincial and component associations) and individual information packages to be included in "Probe".

"Smile...for Life" will be our slogan, adopted from our Resource for the Elderly. Participation at the grass roots level is the key to success for our first National Dental Hygiene Campaign. This is your opportunity to help people "Smile...for Life".

At the same time, C.D.H.A. will be celebrating its 25th anniversary as the organized voice of dental hygiene. That's «25 years of **hygienists helping people.**» As our theme for the very first Canadian N.D.H.W., you'll be hearing that phrase a lot! As a health care profession dedicated to helping people help themselves our theme says it all!!

Are you interested in being a community campaign leader?

Your participation is needed to make this campaign a success.

Contact: CDHA Central Office.

Regional Development Seminar

On December 5th and 6th, 1987, twenty representatives from across Canada met in Winnipeg, Manitoba for the 2nd Annual Regional Development Seminar.

Support and funding for the Seminar was provided by Provincial Dental Hygienists' Associations, CDHA, Department of Health, Government of Manitoba and MDHA.

The workshop, facilitated by Connie Tussing, immediate Past President of the American Dental Hygienists' Association dealt with current CDHA and provincial membership activities and future strategies. National membership goals were established.

This workshop reiterated the outcome of the April 1987 membership meeting - student membership should be our priority. It is hoped that these students will then remain active members upon graduation. Ideas generated to meet this goal included needs assessment, committees working with the individual dental hygiene programs, and a "buddy" system with active and student members.

Recommendations and action plans were developed resulting in a five year strategy to be undertaken by the combined efforts of the national and provincial membership committees.

The Seminar was a great success - Congratulations to all who participated. Two television interviews were conducted during the Seminar and aired on a national (CBC) and a local station, highlighting the C.D.H.A. Seminar activities.

Dental Health Month '88

This April, The Canadian Dental Association has exciting new plans for Dental Health Month. There's **Bob**, the smiling face on all of this year's materials, and the **5 Point Prevention Plan** - the CDA's new package of prevention that shows Canadians how to **Keep Smiling** for a lifetime.

Items available for '88 are; posters, buttons, stickers, wallet cards, bumper stickers and balloons.

To order contact:

Canadian Dental Association
1815 Alta Vista Drive
Ottawa, Ontario K1G 3Y6

or call:

CDA Information Services
(613) 523-1770 ext. 204 or 205



Certificate of Appreciation

The "C.D.H.A. Certificate of Appreciation" is awarded to individuals who have in some way contributed to community health promotion specifically relating to dental health.

Nominations should be forwarded to:

L. MacDonald, Chair
Health Promotion Committee
1192 Wolseley Avenue
Winnipeg, Manitoba R3G 1G7

Please include description of the activity and complete mailing address of the nominee.

"Smile for Life" ...a dental guide for older adults

is now available from your provincial associations or CDHA Central Office.

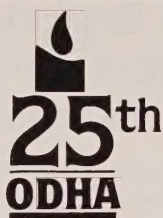
Please contact provincial presidents for details.

Hospital Dental Hygiene Residency

The Jewish General Hospital in Montréal offers a one year residency program for hygienists. This program will increase your knowledge and ability in treating medically compromised, handicapped, geriatric and psychiatric patients. If you need a change and desire a challenge, please apply to:

Mrs. Christine Wooley-Berry,
R.D.H.
3755 Côte Ste-Catherine
Montréal, Québec
H3T 1E2

For more information call:
(514) 739-7761
Final date for applications
is April 1, 1988.



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"Celebration With a Smile"

For more information
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Hamilton, Ontario
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CDHA Membership Draw

Congratulations to the winners of
the 1988 C.D.H.A. membership
draw!

Colette Thistle
Halifax, N.S.
Dianne Bentham
Penticton, B.C.

Dates to Remember 1988

- May 9-10 ■ ODHA 25th Anniversary
- Toronto, Ont.
- June 1-8 ■ American Dental Hygienists' Assoc. 65th Annual Session
- Seattle, Wash.
- June 9-12 ■ CDHA Board of Directors Meeting
- Ottawa, Ont.
- June 16-18 ■ BCDHA Convention
- Vancouver, B.C.
- June 23-26 ■ Dalhousie Dental Hygiene 25th Anniversary
- Halifax, N.S.
- August 8-10 ■ International Conference Preventive Dentistry
- Karlstad/Sunne Sweden
- August 21-24 ■ CDHA National Convention "Congregate in 88"
- Edmonton, Alta.
- October 16-22 ■ National Dental Hygiene Week
- Canada - wide

1989

- June 28 - July 1 ■ International Symposium On Dental Hygiene
- Ottawa, Ont.



DALHOUSIE'S 25th

Glenda M. Butt, *R.D.H., B.A., M.Ed*
Assistant Professor
School of Dental Hygiene
Dalhousie University

Background

In 1961, Dalhousie University initiated a School of Dental Hygiene when there were only two others in the country. Dean J.D. MacLean supported and encouraged the program which had become a School within the Faculty of Dentistry. Janet Burnham, a University of Minnesota graduate, arrived from the University of Iowa to become the first director. Dalhousie awarded her an honorary degree in 1983 for her contributions to the School from 1961-65. In 1963, a class of five women graduated, setting the pace for many to follow.

Four directors with several interspersing acting directors have since made their mark.



Achievements in Program

The award for the Director with the most stamina goes to Kate MacDonald, who dated her directorship from 1969-1982. During that period a number of achievements were gained; a few of which are listed below:

- Dalhousie was the first to incorporate a restorative expanded function program into its dental hygiene curriculum in 1972, after two years of summer sessions.
- Dalhousie dental hygiene was one of the first programs to adopt the criterion referenced clinical evaluation system in the mid 1970's.
- 1980 saw the major move to a new dental facility including an expanded two floor dental clinic, that incorporated the vertical group system of dental and dental hygiene student interaction.
- The new facility also brought incremental increases in class size from the standard twenty in 1981 to the present maximum of

forty. The earlier fourteen student capability had expanded to 20 in 1969.

Achievements in Faculty

- During the MacDonald directorship, all full time faculty were given positive encouragement to pursue higher degrees and all were successful.
- Dalhousie's School of Dental Hygiene was not without its political and administrative struggles. In 1982 faculty relaxed somewhat when it gained membership in Dalhousie's collective bargaining unit.
- Unfortunately, increase in class size doesn't mean a proportionate increase in full time faculty. However, appointing credentialed individuals to the School has become standard practice, adding to the quality of the program.
- A strong commitment to excellence of the program was developed and enhanced during the MacDonald era and became

the foundation for all faculty and curriculum changes.

- One director and several acting directors offered various levels of leadership from 1982-1985.
- The year long struggle to maintain our tradition and need for a dental hygienist as director, ended with the arrival of Margery Forgay in 1985. Two years later Dalhousie has landed at a major crossroads in the growth and development of its dental hygiene program.

The Next 25!

After completion of an eighteen month curriculum review, the School is following academic suit of the allied health professions by launching:

- A five course prerequisite requirement for admission to the two year core diploma program.
- Major revisions in the two year diploma program.
- A proposal (recently approved by faculty) for a one year post-diploma program leading to a Bachelor of Dental Hygiene degree.
- An optional degree completion in the Faculty of Arts and Science, where dental hygiene graduates would be given one year advanced standing for courses prescribed in the diploma program.

Bachelor of Dental Hygiene

Energies mount as we start the long road to final acceptance and approval of a Bachelor's degree program, which would be the first of its type in the country. The post diploma program is designed to prepare dental hygienists for emerging roles in community oral health to include roles in extended care facilities, and for teaching in dental hygiene and dental assisting education.

Research

Consistent with the growing up of any profession, comes the desire to embrace a body of knowledge and discover: new information, new insights, future trends and practice needs. All full time faculty are currently engaged in funded and unfunded projects that will be reported at upcoming meetings. The Faculty of Dentistry at Dalhousie has only in the last three years engaged a resource person from the Dalhousie Department of Education one day a week to assist faculty with design and implementation with research projects.

2013 ?????

What will another twenty-five bring:

- the buoyancy of hopefulness of alternate practice settings
- hygienists in hospitals and extended care facilities
- a zero caries rate in Western countries
- hygienists at the decision and policy-making levels of health promotion
- hygienists as health care providers in collaboration with other allied health professionals
- a sound acceptance of the uniqueness of dental hygiene as a profession
- increased body of dental hygiene knowledge through research and education

Conclusion

1988 marks the 25th anniversary of the School of Dental Hygiene in Dalhousie's Faculty of Dentistry. The School's history reveals a continually evolving program, consistent with the emerging profession of dental hygiene.

Since 1962, over four hundred alumni have scattered across the country, as well as Atlantic Canada. We believe Dalhousie's program to be second to none and take pride in

its educational philosophy of initiating curriculum change and new programs at a progressive pace in meeting the needs of Atlantic Canada.

The Celebration

To honor the occasion, a celebration is planned for June 23-26, 1988. From Michele Darby's "New Face of Dental Hygiene" to Dr. Brad MacRae's "Maintaining Peak Performance", to roasting Kate and harbour cruises with a Dixieland Band, Halifax will be hot. Then there's the lobster, the Silver Spoon, Point Pleasant Park, sunset from on the Citadel, and all those native delights not on the program. Plan to be there class of '69. ■

Dalhousie Alumni Reception

Dalhousie Dental and Dental Hygiene graduates are invited to attend a reception on Tuesday May 10, 1988

5 to 7 p.m.

SHERATON CENTRE HOTEL,
TORONTO

Dufferin Room

Come and join us for a little
DOWNEAST HOSPITALITY

CONTINUING EDUCATION

Committee Update

In the past decade many professional groups have been working towards the improved development of their continuing education programs. Education is no longer regarded as a process with finality but as a lifetime of striving towards excellence in learning.

Continuing education is an important component of quality and competency assurance, two areas which have and will continue to be the issues of the 80's.

As a result of the 1986 Lets All Learn workshop, held in Halifax and convened by Mickey Wener, former C.E. Chair, the participants brought forth many ideas for areas of new initiatives. Two key directives for C.D.H.A. were to improve continuing education communication to all C.D.H.A. members by inclusion of continuing education courses in the C.D.H.A. Journal and to develop a needs assessment package.

Effort has been made to provide information to the journal regarding upcoming courses. The development of the needs assessment package is underway with the financial support of CFDE and the

industrious efforts of the continuing education subcommittee. This package is being designed to give directional guidance to continuing education chairpersons for the development and evaluation of their continuing education programs.

I wish to thank all the efforts of CDHA's provincial representatives whose dedicated efforts often go unacknowledged. ■

Janice Pimlott, *Dip.D.H., BScD, MSc*
Chairman

The Dental Health Center of Karlstad Sweden

invites
to the 1st international
Conference on

Preventive dentistry and epidemiology

in Karlstad/Sunne, Sweden,
August 8-10, 1988
and a Course on

Table clinics and demonstration preventive materials, program and methods

in Karlstad, Sweden,
August 11-13, 1988

— in collaboration with —

Swedish National Board of
Health and Welfare

The fee for the conference is SEK 3000, corresponding to (oct-87) USD 470 per participant.

In the price are included lectures, documentation as well as transportation between Karlstad and Sunne.

Accommodation and travel to and from Sweden are not included.

The fee for the course is SEK 3000 (USD 470). In this price lectures, practice and documentation are included. For those who attend the conference the course fee will be reduced to SEK 2000 (USD 310).

Conference program

- WHO's goals, ongoing and planned projects in the fields of preventive dentistry and epidemiology.
- Current trends in the field of dental research focused on prevention and epidemiology.
- Current and future aspects on etiology, diagnosis, epidemiology and prevention of periodontal diseases and dental caries.
- Epidemiology, etiology, diagnosis and prevention of oral precancer and HIV-associated oral lesions.
- Current trends in the field of community dentistry.
- Dental health care systems in Scandinavia.
- Planning and organisation of public dental health service.
- Preventive programs for children and adults.
- Aspects on cost effectiveness and cost/benefit.

Course program

- Presentation of training programs for dental hygienists and prophylactic dental assistants.
- Post-graduate training programs for dentists.
- Presentations of ongoing clinical research in preventive dentistry.
- Table clinics and practice of preventive materials and methods.
- Computer-aided epidemiology, demonstrations and practice.
- Demonstrations of integrated teams consisting of teams of dentists, dental hygienists and prophylactic dental assistants working with preventive programs for pregnant women, pre-school children, school children, adults and handicapped.
- Study tour.

The conference and the course will deal with subjects of special interest to dentists, dental hygienists, dental health administrators and executives, professors and instructors, within the field of preventive dentistry and epidemiology.

Further enquiries can be sent to the conference committee via the conference secretariate:

The Preventive Dental Health Center
c/o Hjarnbruket
Box 9055
S-650 09 KARLSTAD
SWEDEN

Telephone: +46 054-13 20 10
Telefax: 054-13 23 22
Telex: 66923 TKB S

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A Participation Course

May 2 — 6, 1988
University of Alberta
4069 Dentistry/Pharmacy Bldg.
Edmonton, Alberta

Limited Enrollment — 40

Registration: 8:30 A.M.

Lecture: 9:00 A.M.

Tuition: Dentists \$500.00
Hygienists \$500.00

Registration Closing Date:
April 15, 1988

All applications must be received and prepaid by this date.

COURSE OVERVIEW

This week long course offers an update in skills and theories used in daily practice. Current disease prevention methods will be presented together with other relevant topics in dental hygiene. There will be opportunities for participants to select workshop sessions according to their background, interests, personal and professional goals. Laboratory exercises and clinical hands-on sessions, with patients, will be included with the course.

PLEASE NOTE THAT RADIOGRAPHIC TECHNIQUES ARE NOT INCLUDED IN THIS COURSE.

THIS PROGRAM IS FOR YOU IF YOU WANT TO:

1. Update your instrumentation skills in calculus detection, periodontal probing and root planing.
2. Improve competencies in instrument sharpening, margination and amalgam polishing.
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4. Re-enter active practice and fine-tune your skills.
5. Prepare for the Universities Coordinating Council Professional Examination in Dental Hygiene.

ELIGIBILITY AND REQUIREMENTS

This course is open to dentists and to graduates of any dental hygiene program. No prerequisite is necessary. Patients will be furnished by the Faculty of Dentistry. An instrument kit will be assembled for purchase at student prices. This cost is Faculty cost, devoid of tax and supplier mark-up. All instruments will become the participants' kit. Pant uniforms or lab coats and/or clinical tunics are needed each day.

PARKING

Monday through Friday meter parking is available at Education Car Park located at 114th Street and 87th Avenue. Please call our office well in advance of the course and we can reserve a parking spot for you. You will pay the car park attendant on the day of the course. All other parking areas close to the school are restricted and subject to ticketing and towing. The Faculty of Dentistry does not assume any responsibility for fines or towing.

COURSE COORDINATORS

Ms. B.A. Zier, *Dip. D.H., B.Ed., M.Ed.*
Ms. J.F. Pimlott, *Dip. D.H., B.Sc.D., M.Sc.*

Continuing Education

Dalhousie University,
Halifax, N.S.
(902) 424-2248

March 26, 1988 ■ "Computers in your Practice"

April 14, 1988 ■ "Money Management"

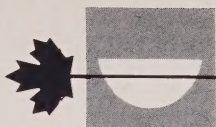
April 30, 1988 ■ "Sonics in Endodontic Therapy"

June 23-26, 1988 ■ Dental Hygiene 25th Anniversary Celebrations

Notice of Meeting

The annual meeting of the Society for Oral Oncology will be held in Vancouver, British Columbia from June 9-11, 1988 at the Meridien Hotel. Information concerning accommodation, scientific and social programmes can be obtained from the local arrangements chairman:
Dr. P. Stevenson-Moore
Cancer Control Agency of B.C.
600 West 10th Avenue
Vancouver, B.C.
CANADA V5Z 4E6

C.D.H.A. NATIONAL CONVENTION



AUGUST 21-24, 1988 EDMONTON, ALBERTA

CONGREGATE IN '88!

PROGRAM OF EVENTS

Sunday, August 21

7:00-10:00 p.m.

Opening Ceremonies
Registration

■ an opportunity to meet and eat
with fellow registrants

Monday, August 22

8:00-9:00 a.m.

Registration
Continental Breakfast

9:00-12:00

Dr. Irene Woodall
**Revitalizing Your Dental Hygiene
Career**



Dr. Irene Woodall, the well known
educator, researcher, consultant,
RDH editor, and author of

*Comprehensive Dental Hygiene Care
and Legal, Ethical, and
Management Aspects of the Dental
Care System* is the keynote speaker
for the Convention.

Dr. Woodall's focus for discussion
will be *Revitalizing Your Dental
Hygiene Career*. Her talk is designed
for dental hygienists who expect
that dental hygiene will be a viable,
attractive profession in the years
ahead. Following a discussion on
the current status of dental hygiene,
Dr. Woodall promises to define
some alternatives for developing a
solid career orientation - complete
with concrete action plans. Dr.
Woodall will also be specifying
major changes in clinical protocols
based on a growing research base in
periodontics and caries control.

12:00-1:30 p.m.

President's Luncheon

1:30-4:30 p.m.

Dr. Irene Woodall
**Revitalizing Your Dental Hygiene
Career**
cont.

7:00 p.m. - 10:00 p.m.

Class Reunion

■ An opportunity for hygienists of
every graduating year to
congregate and share the past
and the present.

OR

West Edmonton Mall

■ Buses will transport any
registrants to West Edmonton
Mall - the largest shopping and
entertainment complex in the
World!

Tuesday, August 23

8:00-9:00 a.m.

Registration
Continental Breakfast

9:00-12:00

Doug Krenz
Focus on Excellence

Mr. Krenz is a certified psychologist
who has specialized in the study of
self esteem for the past eleven
years. Mr. Krenz teaches workshops
through the University of Alberta's
Faculty of Extension and is
currently employed by the
Edmonton Public School System's
Centre for Education.

The workshop, Focus on Excellence,
will introduce easy-to-learn
principles that will allow the
registrant to systematically become
more effective in dealing with
others.

12:00-2:00 p.m.

Lunch & Fashion Show

2:00-4:00 p.m.

Table Clinics
Exhibits

7:00-10:00 p.m.

Social: CDHA, CDA, CDAA
Entertainment Evening

Wednesday, August 24

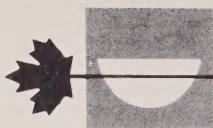
9:00-12:00

Brunch and Learn with
Dr. Bruce Hatfield
**The Ethical Decision Making
Process**

■ Medical doctor, philosopher and
author of *Matters of Life and
Death*, Dr. Hatfield will discuss
very practical approaches to our
day-to-day ethical problems.

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The Program was designed
with YOU in mind.
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AUGUST 21-24, 1988 EDMONTON, ALBERTA

CONGREGATE IN '88!

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ADDRESS: _____

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TELEPHONE: RES. () _____ BUS. () _____

Full Convention

	*Before July 15/88	After July 15/88
C.D.H.A. Member	\$130.00	\$150.00
C.D.H.A. Non-Member	\$260.00	\$280.00

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 = \$60.00

Single Day Registration (Monday, Tuesday, or Wednesday)

C.D.H.A. Member	\$75.00
C.D.H.A. Non-Member	\$130.00
Student	\$25.00

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*NOTE: Registration before July 15/88 makes you eligible to win a FREE Convention registration.

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C.D.H.A. Convention Headquarters, Hospitality Suite, Lectures, etc. are at the Chateau Lacombe, Edmonton - reservations can be made by calling:
 1-800-268-9411

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Reservations before June 30/88 - Guaranteed

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 25 Malvern Drive
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 All registrants eligible for 20% off regular economy fare to and from Edmonton
 Call 1-800-361-7585
 (Quote File #88-0440)

Cancellation Policy
 Before July 15 - Full Refund
 July 15 - August 15 - 25% Administration Charge
 After August 15 - No Refund

Hospital Administrative Assistant Diane Allen



I am a firm believer in learning, growth and change. After receiving my Bachelor of Science in Dentistry (Dental Hygiene) (BScD) my appetite for learning and growth was whetted for more. I realized some time shortly after graduating with my BScD that I had a real interest in administration. It was at that time that I decided to pursue my education further.

After receiving my Master's in Health Science in Health Administration I was fortunate in obtaining my present job as an Administrative Assistant at Oakville Trafalgar Memorial Hospital. I report to the President of the hospital and have found my time at the hospital very pleasant and interesting. This position is an ideal entry level position into senior administration because it has a broad focus, wide interaction with a number of people and variety within the work itself.

My position has four basic functions: strategic planning, evaluation, quality assurance and project work.

The function of strategic planning is an exciting one. It allows me to work with a wide variety of people from board members and senior administration to physicians and hospital staff. This is an area where there will be much growth in the future because of the restricted funding for hospitals. Consequently, hospital administrators must be more creative, innovative and

aggressive to compete for limited dollars for new programs, people or facilities. Thus, the function of strategic planning is very important.

The areas of evaluation and quality assurance tie in together. Once again these functions allow me to work with a wide range of people. Quality Assurance is really a program consisting of a number of components with their corresponding standards. Quality Assurance is designed and required by hospitals for certification to ensure that standards in the various departments are being met or exceeded. This information is then reported in a condensed format to the Board of Governors of the Hospital and action may be taken or recommendations given to improve the quality of care.

Evaluation is an integral part of quality assurance but evaluation stands on its own as well. In order to assure that quality is being met or exceeded studies are done by various departments to test how they measure up. My job is to help facilitate the design of such studies if people are having problems with designing them.

The other aspect of evaluation is working closely with the various medical staff and medical committees to study specific areas of medical care such as utilization studies, or how different areas of

the hospital are used such as how frequently, by whom, etc.

The fourth component of my job is that of project work. This involves a number of miscellaneous jobs. These projects may range from writing a letter of a literature review to a coordinating role in a specific task.

The key to this job is to be able to work with a variety of people and professionals.

There are some parallels that can be drawn between the field of dentistry and the hospital world. In both areas you work with a number of different types of people with varying levels of education, and experience. Both fields require problem solving skills, communication skills, and team work skills.

Dental Hygiene was helpful to me in that it provided me with basic skills that with a little more education and practice could be transferred to another field.

Looking back I can say that each move has taught me something different with which I've been able to build upon. ■



**DENTAL
HYGIENE
IN CANADA**

NATIONAL SURVEY

Patricia M. Johnson
R.D.H., B.Sc.D., M.Sc.

Thanks are extended to the dental hygienists who have cooperated in this study. The overall response rate is 86.2% (n=5424); 90.2% for the short questionnaire form (Type A) and 82.1% for the more comprehensive longer form (Type B). This excellent response is due in large part to the high return on the initial questionnaire mailing last May and the subsequent assistance of individual members to trace "the missing few". The cooperation provided and extra effort expended by the staff of the Canadian Dental Hygienists' Association and, in Quebec, the Corporation Professionnelle des Hygienistes Dentaires du Quebec have been vital to this study and are greatly appreciated. A report of descriptive findings will be available through the above organizations.

As reported in the Fall 1987 issue of this journal, over 20% of respondents added written comments in the space provided on the survey forms. A random sample of this set of forms was drawn for a content analysis, giving a total of 335 questionnaires and 638 comment statements. Two hundred and sixty-one statements referred to the survey; the remaining 377 statements referred to dental hygiene-related issues.

Table 1 describes basic characteristics of the sample. Respondents in the sample are similar to survey respondents in general with the exception of type of survey form completed. Fifty-seven percent of forms in the

'comment' sample were Type B, compared to 47% in the total set of survey responses. In addition, Type B respondents commented on average on more than one topic. A response effect due to the detailed nature of the form can be expected. However, the time and energy invested by these respondents to provide additional information, having already completed the longer survey form, suggests a strong interest in the issues raised and a concern that their views and experiences be known.

Table 2 displays the topic and distribution of the comments sampled. Two topics are predominant - dental hygiene practice, including activities and

Table 1

Selected Characteristics of a Sample of Respondents Who Added Written Personal Comment Statements. Canadian Dental Hygienist Survey, 1987.

1. Region of Residence

Atlantic	27	(8.1)
Quebec	77	(23.0)
Ontario	140	(41.8)
Prairie	55	(16.4)
British Columbia	36	(10.1)
CANADA	335	(100.0)

2. Language of Survey Form

English	265	(79.1)
French	70	(20.9)

3. Type of Survey Form

A (short form)	144	(43.0)
B (long form)	191	(57.0)

4. Age Group (years)

18 to 27	109	(32.6)
28 to 37	170	(50.7)
38 and over	56	(16.6)

5. Location of Basic Dental Hygiene Education Program

University	162	(48.9)
College	169	(51.1)

6. Currently Working in Dental Hygiene

Yes	278	(83.0)
No	57	(17.0)

conditions, and career satisfaction, including future intentions. Each topic comprised 82 of the total 377 statements analysed. Statements in the 'practice' category indicated a desire for enhanced role and responsibility, in general within the traditional organizational framework. Seven of 29 statements indicated satisfaction. Some frustration was reported – for example, “too much to do in too little time in private practice”, “our range of skills and knowledge are not recognized or appreciated by employers”, and “use of unqualified personnel”. Eleven of 28 statements

on an employment situation indicated satisfaction. In the 'career' category, 27 of 82 statements expressed satisfaction – for example, “can combine working and mothering” and another 37 expressed dissatisfaction – for example, “lack of future”, “underutilization”, “burnout”, and “feeling at the mercy of employers”. Statements regarding the future were divided between intentions to change career and to remain in dental hygiene.

Most of the statements in the category on dental hygiene education were concerned with entry level programs (28/53). In the category on regulation, portability of practice qualifications was the primary topic (23/64). Other topics included control (20/64), with self-regulation favoured (14/16), and scope of practice (14/64). The major topic in the category on practice settings and employment arrangements was remuneration (35/49) – for example, “wages should correspond to experience”, “not paid while employer on vacation”, and “prefer independent contracting”. In the category on professionalization, lack of recognition coupled with a need to promote the profession was the primary topic (10/19).

Anonymous comment statements are useful to interpret and illustrate survey findings. The above figures will become more meaningful when they are considered in the context of reported workforce participation, practice activities and work situations. These interim figures are presented for the interest of survey participants. Further results will be published as available. ■

Table 2

Distribution of a Sample of Comment Statements from Respondent Questionnaires, by Topic and Region. Canadian Dental Hygienists' Survey, 1987.

Topic	Region					
	CANADA	Atlantic	Quebec	Ontario	Prairie	British Columbia
Issues Related to Dental Hygiene:						
1. Education	53	2	6	31	10	4
2. Regulation	64	6	10	28	12	8
3. Practice Activities and Conditions	82	8	20	32	19	3
4. Employment Arrangements	49	8	16	14	7	4
5. Career Satisfaction, Future Intent	82	4	21	29	16	12
6. Professionalization and Other Issues	47	6	9	18	7	7
TOTAL	377	34	82	152	71	38

CDHA 25th Anniversary

The special anniversary edition of *Probe* is being prepared.

We need your help!

Do you have pictures, stories or historical data? Please send information to:

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Ottawa, Ontario
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DENTAL HYGIENE AN OVERVIEW EDUCATION IN CANADA

by Kate MacDonald,
R.D.H., B.S., M. Ed.

Dental hygiene education in Canada has undergone many changes since the first program came into being at the University of Toronto in 1951. Numbers of graduates have increased from six in that first class in 1953 to a total of five hundred and six for the country from 23 programs in 1987.⁶ Other changes include the movement of programs from the dental faculty setting in universities to the community colleges.

A career ladder system has been implemented in various ways and education is now offered in both official languages. There are eight francophone programs in Quebec and one francophone program in Ontario. Another Ontario school offers part of the instruction in French.

Other developments include the initiation of baccalaureate and post-certificate programs and teaching of expanded functions. Many of the changes have been government inspired but others have been on the initiative of the educators themselves.

The Canadian Dental Association has played an active role in dental hygiene education through the Council on Education and Accreditation. The Council has been instrumental in developing guidelines for minimum educational standards applied to the accreditation process. Through the mechanism of accreditation, educational equivalencies have

been developed. Improvements in the accreditation process have been facilitated through the co-operation of the Canadian Dental Association and the Canadian Dental Hygienists' Association. At the time of writing, all Canadian dental hygiene programs have been accredited, are scheduled for site visits, or, in the case of new programs, have sought consultation on accreditation standards prior to accepting classes.

History

The first dental hygiene program was established at the University of Toronto in 1951 with the first graduating class in 1953 and the final graduates in 1977. In 1956 the first military program for the training of dental hygienists began in Ottawa and two years later was moved to the Canadian Forces Dental School at Camp Borden.¹⁵

The 1960's saw the establishment of diploma programs at Dalhousie University, University of Alberta, University of Manitoba and the University of British Columbia.

The 1970's heralded rapid growth in dental hygiene programs in community colleges in Quebec and Ontario, as well as one program in Saskatchewan. Baccalaureate degree programs were established at the University of Montreal and at the University of Toronto.

In 1986 we saw the demise of the dental hygiene program at the University of British Columbia and the establishment of the first dental hygiene community college program in British Columbia. Two additional CEGEP programs also

began that year. A year later an additional community college in British Columbia accepted students into its program.

Educational Settings and Admission Requirements

Dental hygiene education is offered in a variety of settings in Canada. Of the 26 programs most are in community colleges. There are three university-based dental hygiene schools within the faculties of dentistry located at the University of Alberta, University of Manitoba and Dalhousie University. The pre-requisites for admission are wide-ranging depending upon the setting. The more traditional two-year programs require high school graduation, senior matriculation equivalent or a one year university requirement.

The Ontario programs are all within community colleges and have adopted the career ladder concept. In addition to a grade twelve prerequisite, candidates must be dental assistants. Wascana Institute in Saskatchewan builds its dental hygiene program on the two-year dental therapy program and is available only to graduate dental therapists. The Quebec CEGEPs are three years in duration with the first year providing mainly health science core courses.

Ontario Programs

Ontario programs because of their unique characteristics warrant special mention. They are located in eleven community colleges and are unique in that the formal

dental hygiene program is one year following a one year dental assisting program or the equivalent. (The equivalent is deemed to be certification as a dental assistant). It should be noted that this particular dental assisting curriculum has been expanded and augmented to provide a foundation in basic science necessary for dental hygiene education. However, not everyone who successfully completes the dental assisting program goes into dental hygiene due to the fact that class sizes in dental hygiene are generally much smaller than those in dental assisting. In recent accreditation surveys, the reports verify that most survey teams commented upon the compressed nature of Ontario programs which result in heavier than usual workloads for dental assisting students, leaving little room for the expansion of dental assisting duties which are currently below the scope of assistants in other Canadian provinces.

Compression in dental hygiene programs is also evident and sometimes results in attempts to cover wide ranges of material in multi-disciplinary courses. To their credit, many of the schools have developed computer assisted instruction and other innovative means of reviewing and updating material for the students' benefit.⁵ It would seem, however, that additional time and changes in admission requirements would serve these schools well.

The present system generally produces students who are mature and self-motivated and employing dentists often consider the dental assisting education and experience of dental hygienists a bonus.⁵ It may, however, be an uneconomic way of becoming a dental hygienist.

Armed Forces

The Armed Forces were the first to implement the career ladder

concept and continue to do so. A formal dental assisting program is followed by a number of years of experience as an assistant combined with some formal courses which would prepare the individual for dental hygiene education. The dental hygiene program is very compressed and requires that students spend a great deal of time in independent study. The classes are generally small, with four to eight participants providing for a large measure of individual attention.

Expanded Functions

In the 1960's there were many advocates for extending the clinical function of dental hygienists beyond those traditionally related to prevention.^{8,11,12} Subsequently, programs were offered in restorative dentistry for graduate dental hygienists in the Canadian Forces Dental Services School and a few years later at Dalhousie University. The hygienists were taught to place contour and finish plastic restorations in teeth that had been prepared by a dentist.⁴ The Dalhousie program was first offered as a 2½ month summer course and shortly after restorative functions were integrated into the curriculum. Restorative functions also became part of the University of Manitoba's curriculum, as well as the curricula of the Quebec CEGEPs where they were legally recognized for only three years. For several years the University of British Columbia included restorative extended duties as an option although these procedures were not recognized as legal duties for hygienists in British Columbia. Restorative functions are taught as an additional module to graduate hygienists in Ontario.

The University of British Columbia began teaching the administration of local anesthesia to dental hygiene students in 1978.

Knowledge in this area is required for licensure in British Columbia. Students who do not have educational preparation in local anesthesia must complete a

continuing education program within a required period after entering the province. Other areas of expanded duties which have been offered in some provinces are minor periodontal surgery and orthodontics.

Post-Diploma Education

The only Canadian baccalaureate degree program for dental hygienists is at the University of Toronto. The degree program at the University of Montreal was terminated in 1979. A post-diploma program was initiated in 1984 offering an advanced certificate in a number of health-related areas to dental hygiene graduates.⁹

The three remaining dental hygiene schools within dental faculties, Alberta, Manitoba and Dalhousie, are currently working on proposals for baccalaureate degrees which would be offered to limited numbers of students. The schools would retain their diploma programs as well. Recently, Deans at the University of Toronto, the University of British Columbia and Dalhousie University were polled by the Canadian Dental Hygienists Association on the possibility of their institutions offering a Master's level program in dental hygiene. In all cases the response was negative although alternative programs were cited by some, such as an inter-disciplinary Master's program offered to all health professions.⁷

Continuing Education

The necessity to continue learning throughout one's professional life in order to assure continuing competence has long been recognized by dental hygienists. Participation in continuing education activities is encouraged by local and national associations. Courses are offered through continuing education departments in faculties of dentistry, schools of dental hygiene, provincial and local licensing bodies and provincial governments.

Participation rates in continuing education courses by Canadian dental hygienists are fairly high. Lewis¹⁰ reported that 80% of practicing dental hygienists had taken continuing education courses since graduation, with 3.8 being the average number of courses taken in the previous two years. British Columbia and Saskatchewan are the only provinces that have mandatory continuing education requirements for relicensure.

It is anticipated that there will be a growing need for participation re-entry type courses for hygienists who have been absent from practice as well as for courses which will provide knowledge and skills in the delivery of dental hygiene care to the geriatric population and other special needs patients.

The Future

Dental hygiene education is constantly under review and indications are that many changes will occur within the next few years. The American Dental Hygienists' Association has been dealing with the future of dental hygiene in a series of workshops which began in 1984. Some of the information gleaned through their discussions indicates that educational preparation can no longer be defined through narrowly defined standards of length and content and that an insightful and innovative education structure is needed to keep pace with new approaches to health care delivery and new roles for hygienists. The identified roles are administration/management; clinical; consumer advocacy; education/health promotion and research. The development of expertise in these areas will require modification to the present educational system.³

The first workshop in 1984 focused on the need to define dental hygiene and to reinforce preparation of graduates for major roles in health promotion. The workshop group took the position that dental hygienists should be

"knowledge workers rather than technology appliers" and curricula will be developed accordingly.²

The consensus of the ADHA workshops is that future entry-level of dental hygienists should be at the baccalaureate level. To this end many schools are beginning to form alliances with degree granting institutions where effective credit transfers can be arranged.^{1,3}

In Canada, curriculum reviews are revealing that dental hygiene programs are already compressed and in need of some breathing space. Some programs are being extended by a few weeks for additional clinical experience or by an extra year as a prerequisite to complete some of the required basic science studies. These measures will help to alleviate the situation somewhat but it may be necessary to reorder our priorities to allow for a greater expansion of current dental hygiene knowledge. If dental hygiene is to be recognized as a profession, research is necessary and education should provide the foundation for the development of research skills. While all dental hygienists will not be involved in research, they should be able to apply research in their chosen roles. Educators, at least, will be expected to engage in research and the development of baccalaureate and masters programs will enhance the emphasis on research and the expansion of dental hygiene knowledge. The future should be interesting with professional growth as a goal.

Some of the information in this paper was gathered for the Working Group on Dental Hygiene Practice and is reprinted with the permission of the Department of Health and Welfare through the Working Group Co-Ordinator, Sharon Amer. ■

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WHAT ALL DENTAL PERSONNEL SHOULD KNOW ABOUT AIDS

Janice Robbins,
S.D.T./R.D.H.

Prevention of cross-contamination in the dental office is very important. The virus that causes Acquired Immunodeficiency Syndrome (AIDS) is fragile, but because of the high fatality rate people have become apprehensive about coming in contact with the virus.

This article deals with the oral signs associated with AIDS. Precautions staff should be using daily for all patients include effective sterilization and barrier techniques.

AIDS is spreading at alarming rates. Many patients in the high-risk groups who eventually develop AIDS, and who are antibody positive, are asymptomatic. Therefore, identification is not always evident.

Introduction

Everyone has heard of Acquired Immune Deficiency Syndrome (AIDS), and there have been numerous articles written on the subject. This paper will attempt to clarify some misconceptions and hopefully answer a few important questions.

Etiology

Every day there is another headline announcing yet another discovery about AIDS and the dreaded consequences. People working in dental offices have become particularly concerned because of the daily contact they have with the blood and saliva of their patients. These contacts may increase their chances of being exposed to AIDS.²

It is known that AIDS was present in Zaire in 1976 and was probably a mutant virus spread from monkeys to humans. This fact has led to suggestions that the initial reservoir of the causative agents of AIDS was Central Africa. In the U.S.A., the first cases of AIDS were noted in 1981, however, studies have revealed that over fifty previously undiagnosed cases of AIDS had occurred in the U.S.A. and Haiti between 1978 and 1981.²

There is now proof that AIDS is caused by *Human Immuno-deficiency Virus (HIV)*. Evidence was provided in 1984 that there is an association between human T-cell virus and AIDS. This causative agent of AIDS was termed "human T-cell lymphotropic virus - HTLV-III".³ This virus has been shown to infect T-cells that are involved in antigen recognition and that play a decisive role in cell-mediated immunity. As a result of their depletion, affected individuals are susceptible to a number of opportunistic infections and may develop certain neoplasms.⁴

Transmission of AIDS

Transmission of AIDS is believed to be inoculation of blood by infected body fluids, such as semen, blood and plasma products. *The disease is known to occur more frequently among high risk groups* (Table I). Male homosexuals or bisexuals remain the major groups at risk, followed by intravenous drug abusers. *In addition, children and infants born to infected mothers are more prone to developing AIDS.*³

Table 1: Patients in Risk Groups for AIDS³

Patient Characteristics	Total Percentage
Homosexuals, bisexuals	73%
Intravenous drug users	17%
Hemophiliac or coagulation disorders	1%
Transfusions with blood or blood products	1%
Heterosexual contact	1%
None of the above*	7%

*These include: Haitians, PAIDS (Pediatric Acquired Immunodeficiency Syndrome) clinicians and hospital staff personnel and others.

An important issue for the dental practitioner is the possibility of transmission of HIV through saliva. There is *no evidence*, to date, in the scientific literature that the infection with HIV can be transmitted through saliva from one person to another.³

Oral Manifestations

The oral cavity is one of the most common sites for Kaposi's sarcoma (K.S.) of the gastrointestinal tract. The hard palate is the most frequently affected location in the oral cavity. K.S. is a vascular-appearing lesion that may be flat or slightly raised and is usually asymptomatic. On a national level, K.S. is found in over one-third of all AIDS patients.⁶ Candidiasis, or thrush, is also a common finding among AIDS patients.³

A unique white patch termed "hairy" leukoplakia, which occurs almost exclusively on the lateral borders of the tongue and is unique in homosexual and bisexual males, may be of significance since some of HIV carriers develop hairy leukoplakia prior to developing AIDS,^{3,2} however, this association is uncertain.

Update on Routine Precautions

Every member of the dental team has a duty to ensure that all necessary steps are taken to prevent cross-infection in order to protect both their patients and themselves. While special precautions are recommended when treating patients known to be carrying bloodborne diseases, many patients will not have been identified and the only safe approach is to assume that any patient may be a carrier.

A) Medical Histories

Always obtain a thorough medical history for all patients and update it at subsequent appointments. Ask specifically about hepatitis and recurrent illnesses, unintentional weight loss, oral soft-tissue lesions or infections.

B) Cleaning of Instruments

All instruments should be cleaned thoroughly before sterilization and all visible deposits must be removed. Ultrasonic cleaners are recommended for small instruments. Gloves of the 'heavy-duty' (kitchen) type should be worn when washing instruments.

C) Sterilizing Methods

Sterilization methods known to kill all life forms should be used on dental instruments. These include steam autoclave, dry heat oven, and chemical vapour sterilization. Cold sterilizing solutions are not suitable for routine use and should only be employed when the instruments cannot be exposed to heat. The instruments must be thoroughly cleaned and manufacturer's instructions should be followed precisely. Handpieces which can be autoclaved are now available and should be used.

D) Disposables

The general use of disposables is recommended whenever possible. Towels for hand-drying should be disposable or should be the "roller-type". A fresh section should be used each time a towel is needed. Contaminated disposable materials should be handled carefully and should be discarded in plastic bags to minimize human contact. Disposable needles must always be used and must never be re-used for another patient.

E) Equipment Surfaces

The bracket table or similar working surfaces should be scrubbed with detergent and wiped down with gluteraldehyde 2% or hypochlorite solution (household bleach).

F) Personal Protection

Dental personnel should wear gloves, masks, and glasses when performing dental treatment. Because the AIDS virus is present and transmissible in blood, there is a potential for cross contamination. Handwashing with an antiseptic agent should be employed before and after patient contact and after removing gloves. Care has to be taken because gloves don't protect against puncture wounds. Cuts and abrasions should be kept covered with waterproof dressing at all times, even when you are wearing gloves. Any area of skin contaminated with blood should be washed thoroughly and immediately. Any puncture injuries should be allowed to bleed freely and subsequently should be washed with soap and water.

G) Education

All dental staff should be educated thoroughly in the policies adopted in their practice for the prevention of cross-infection. Particular attention should be given to new staff members. All procedures should be

reviewed and updated periodically to ensure that they are being carried out effectively.^{2,5,6,7,8,9,10,11}

Summary

AIDS is one of the several serious infectious diseases that requires dental personnel to be especially conscientious in exercising high-quality infection-control procedures.¹⁰ These include enhanced surface cleanliness, effective sterilization techniques, and the routine use of gloves, masks and protective eye-wear.

AIDS is increasing at an alarming rate,⁸ but, it should be remembered that HIV is fragile and that known routes of transmission are limited. We are all important members of the health care team and, as such, we should be prepared to treat these patients, taking all the necessary precautions.¹⁰ ■

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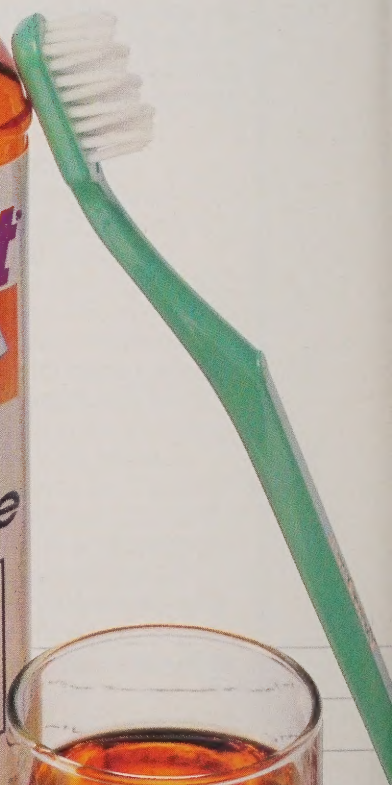
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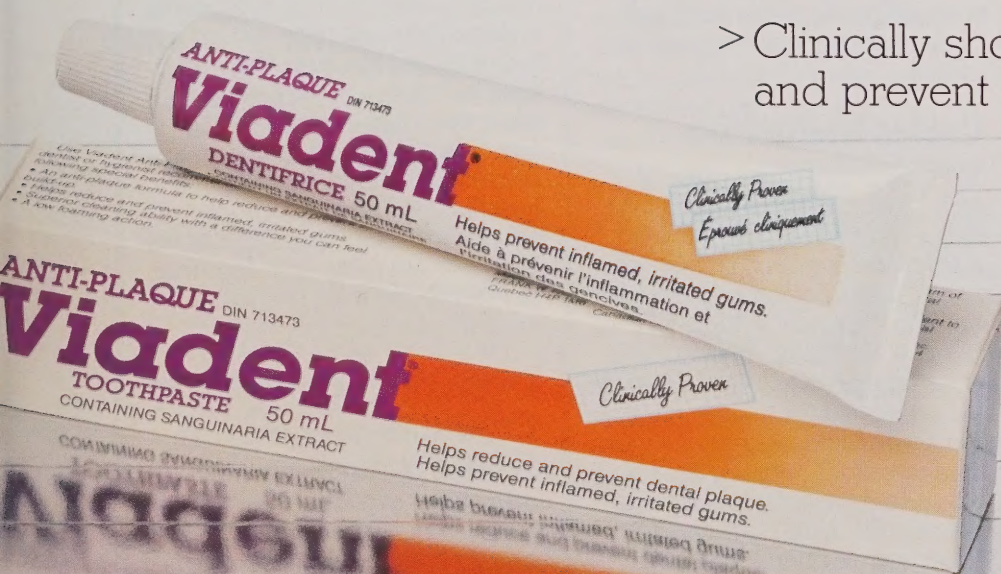
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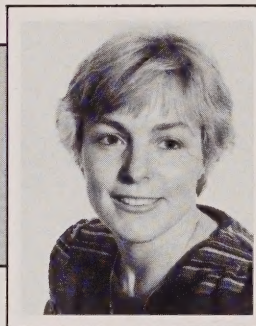


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THE EFFICACY OF MOUTHRINSES

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Originally mouthwashes were introduced as cosmetic agents for their "breath freshening" attributes. Today there is more focus on mouthwashes for their therapeutic or potentially therapeutic benefits. This article discusses the anti-cariogenic and antigingivitis efficacy of mouthrinses.

Fluoride Mouthrinses

Since the early 1960's fluoride mouthrinsing has been widely utilized as a preventive dental health procedure in community health programs. More recently with the introduction of many over-the-counter fluoride mouthrinse preparations its use is sky rocketing into personal oral hygiene programs. This market has grown by "leaps and bounds" and it is believed that at least 7% of the population uses fluoride mouthrinses on a daily basis. (1).

The main fluoride component of both the professional and home products is a neutral sodium fluoride. Professional products contain a 0.2% or .05% neutral NaF for either weekly or daily use respectively, while home products

generally contain .05% neutral sodium fluoride.

The Council on Dental Therapeutics has supported the use of either neutral sodium fluoride or acidulated phosphate fluoride agents (2). However with the majority of research activity focusing on neutral sodium fluoride, it has remained the most popular agent of choice (3, 4, 5). With resurgence of stannous fluoride in both professional and home gel products this trend may extend into the mouthrinse market as well.

Caries Reduction

To evaluate the effectiveness of mouthrinses, caries investigations have centrally focused on school rinsing programs in non fluoridated areas. Significant reductions were noted in the range of 30-50% (2, 4, 5, 7, 8, 9, 10). Studies in fluoridated areas have generally been favorable indicating that the fluoride rinses provided additional caries reduction in ranges of 30-38% (11, 12). A very recent study raised a new issue of whether the additional benefits from multiple fluoride programs will continue to be noted. A fluoride

mouthrinsing program was conducted with a group of children who lived in a non fluoridated area but had benefited from a long-term school based fluoride supplement program. Since starting the supplement program in 1969 significant caries reduction had been noted, however now with the addition of a mouthrinsing program they found no significant benefits from the rinsing program. The investigators concluded that this may be due to the trend of declining caries activity and they hypothesized that since the baseline caries levels are much lower now than in earlier years it may be more difficult to demonstrate the additive fluoride benefits (13). Caries reductions referred to in earlier studies may not be as relevant today with declining baseline levels. More studies are needed to focus on this issue.

Over-the-Counter Products

As mentioned earlier following many years of professional fluoride rinsing programs several over-the-counter home products have gained approval by the Canadian Health

Protection Branch and the U.S. Food and Drug Administration.

As a consideration in the prevention of fluoride toxicity, manufacturers were asked to limit the container size so that no more than 300 mg fluoride be in each bottle and to place a cautionary label warning that mouthrinses should not be used by children under the age of 6 years.

Fluoride Mouthrinses for Plaque Reduction

The major focus of fluoride research has centered on caries reduction; relatively fewer studies have considered the effect of fluoride on microbial populations. In addition to fluoride's capacity to reduce enamel solubility and increase enamel remineralization fluoride is believed to have an effect on microbial activity, this area has stimulated controversial debate (14, 15, 16).

Stannous Fluoride appears to be the most effective antiplaque agent of all the fluorides. There are several studies using .1% SnF to support this view (17-22). It is postulated that stannous fluoride's bacteristatic effect on Strep mutans is due to either the retention of tin by the bacterial cell which reduces bacterial growth and adherence or its ability to inhibit acid formation (16, 23, 24). The manner in which stannous fluoride inhibits acid formation in the plaque for hours is by raising the pH which is not well tolerated by the Strep mutans organisms (25).

Who to Use

Fluoride mouthrinses are generally recommended for those with, or susceptible to, a high caries and plaque rate. These may include:

- those with orthodontic or prosthetic appliances
- individuals with physical or mental handicap
- those with rampant or high caries rates

- those undergoing radiation therapy
- those with poor oral hygiene habits
- those susceptible to root caries (areas of gingival recession)
- those with active periodontal disease

Antimicrobial Agents

The chemical agents which have been added to mouthrinses and marketed for their effects on supragingival plaque prevention can be grouped into five categories: the bisbiguanides (chlorhexidine), quaternary ammonium compounds, phenolic compounds, sanguinarine, as well as the fluoride preparations which have been previously discussed.

Chlorhexidine

Chlorhexidine is currently the most extensively tested and most effective antiplaque and antigingivitis agent. In 1969 and 70, Loe et al reported the first North American studies to document chlorhexidine as the most effective antiplaque and antigingivitis agent. A twice daily rinse with .2% chlorhexidine gluconate completely prevented the accumulation of clinically detectable plaque and gingivitis over a twenty-one day period (26, 27). In a long term study reported by Lang et al, children were administered, in addition to their routine oral hygiene, supervised rinses with 0.2% chlorhexidine six times weekly. Plaque indices after 6 months were 1.24 for chlorhexidine and 1.54 for the placebo group. Differences in gingival indices scores were more substantial: 0.15 for the chlorhexidine group and 0.74 for the placebo group (28).

Kornman confirms that the efficacy of chlorhexidine has been demonstrated clearly in short term trials without any mechanical means of plaque control (29).

Addy (30) lists the following short term anti-plaque uses for chlorhexidine: as an adjunct to mechanical cleaning in initial oral hygiene phases of treatment; in situations where oral hygiene is difficult including postsurgery, intermaxillary fixation, fixed orthodontic therapy; for physically and mentally disabled individuals and in treatment of systemic diseases with oral manifestations such as leukemia.

Chlorhexidine is antifungal and is demonstrating efficacy in treatment of denture stomatitis. Preliminary evidence suggests that chlorhexidine is effective against a wide variety of viruses (31). Given these recent findings Newman suggests that chlorhexidine rinses be used by patients prior to dental procedures (31). This recommendation is consistent with the results of Wyler et al who found that a preliminary water rinse alone would temporarily reduce bacterial aerosol populations by 61%, brushing by 85%, and a mouthrinse by 97% (32).

The oral use of chlorhexidine has been associated with a bitter taste and extrinsic staining of teeth, tongue, and anterior restorations. A concentration and dose dependent relationship has been reported between stain development and chlorhexidine application. Since significantly less discoloration has been found using a 0.1% solution, the daily use of this concentration should be recommended for long term use (28).

Rinsing with chlorhexidine (or other mouthrinse agents) will not affect subgingival plaque. Thus most recent interest in chlorhexidine focuses on the delivery of compounds subgingivally for the treatment of chronic periodontitis. Chlorhexidine may not be as effective as some antimicrobial agents whose activity is more specific for those organisms considered particularly pathogenic to the periodontal tissues (31).

The American Dental Association Council on Dental Therapeutics has adopted its guidelines for products promoted for the management of plaque and gingivitis (33). It is important to recognize that plaque reduction per se is not the primary goal; the anti-plaque agent must also be effective in reducing gingival inflammation on both a short and long term basis.

The first mouthrinse endorsed under these guidelines is a chlorhexidine product distributed by Proctor and Gamble. Peridex® (.12 chlorhexidine gluconate, 11% alcohol base, and patented flavor system) is available by prescription in the United States.

Quaternary Ammonium Compounds

The compounds of this group which have been of greatest interest are cetylpyridinium chloride (CPC) and benzethonium chloride (BTC). As a group the quaternary ammonium compounds exhibit greater activity against gram positive than against gram negative bacteria. The quaternary ammonium mouthrinses have exhibited a moderate degree of efficacy as antiplaque agents (29).

Studies report inconsistent results. Volpe et al reported that rinses of .1% BTC and .1% CPC twice weekly for one week allowed accumulation of 34% and 36% less plaque respectively than a placebo (34). Lobene et al was unable to demonstrate any effects on plaque when subjects rinsed for twenty-one days twice daily with either 0.1% or 0.5% CPC. They did find however a slight improvement in gingivitis beyond that observed by the placebo alone (35).

Bonesvoll and Gjermo explain the inconsistencies in results by the fact that although twice as much CPC is retained in the mouth as chlorhexidine, the levels of CPC drop quickly and continuously over

the twelve hours following a rinse. Chlorhexidine is retained longer and remains stable even after twelve hours. This observation lead to a study in which the frequency of exposure to quaternary ammonium compounds was increased to four times daily which achieved a level of plaque prevention equal to twice daily rinses with chlorhexidine (36).

Phenolic Compounds

Phenol (carbolic acid) was described in 1887 by Lister as the ideal germicide (29). The effectiveness of a commercial preparation of thymol and eucalyptol, methyl salicylate, benzoic and boric acid, termed "essential oils" is reported in several studies. In a nine month trial, the rinse in combination with regular oral hygiene resulted in 50-60% less plaque than a placebo rinse (37). The mixed results that are reported in clinical trials lead Kornman to describe the phenolic compounds as having moderate antiplaque activity with no reported side effects (21). Listerine® is the second agent that has been awarded the acceptance seal of the American Dental Association for its effectiveness in the control of supragingival dental plaque and gingivitis when used twice daily (31). Listerine® is 26.9% (53.8% proof) alcohol. The alcohol level of commercial mouthrinses constitutes a potential safety problem for children. To illustrate, five - 10 ounces of mouthrinse with alcohol content ranging from 18-25% can be potentially lethal for a child weighing 26 pounds (31).

Sanguinarine

Preliminary studies indicate that the benzophenanthridine alkaloid, sanguinarine (Viadent®) is capable of modest reduction and prevention of plaque and gingivitis (29). More extensive testing on the usefulness and safety of this agent is necessary before the product will be considered for acceptance by the Council on Dental Therapeutics (31).

Other Mouthrinses of Interest

Oxygenating mouthrinses whose active ingredients are usually either hydrogen peroxide diluted with water or sodium perborate are effective for short term debridement; their effervescence makes them active against anaerobic microorganisms. However, extended use is cautioned; formation of black hairy tongue, sponginess of the gingiva, hypersensitivity of exposed root surfaces, decalcification of tooth surfaces, and evidence of carcinogenicity have been reported (31).

Receiving considerable promotion in the United States is a prebrushing mouthwash PLAX® is composed of sodium lauryl sulfate, a surface active agent and sodium benzoate, a preservative. Its mechanism of action is basically that of a soap that washes off loose surface layers of plaque (31).

Tantum (benzylamine HCL) is an analgesic and anti-inflammatory mouthrinse that is available by prescription. It is indicated for the relief of pain in acute sore throat, for aphthous stomatitis treatment, and for the symptomatic relief of oropharyngeal mucositis caused by radiation therapy (38, 39).

Conclusion

Dental professionals expend considerable time and effort educating patients about dental plaque. This educational process usually includes instructing patients in mechanical plaque control techniques using a toothbrush, dentifrice and other interdental cleaning aids. In addition to traditional agents, anticariogenic and antigingivitis mouthrinses offer an option and should be considered in supplementing existing plaque control methods. ■

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MEDICATION CARIES; THE RISK TO HEALTHY TEETH OF SUCROSE IN MEDICATIONS

by Barry R. Ashpole
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*Based on a paper presented by
B. Ashpole at the Annual Meeting
of the Ontario Public Health
Association, November 18th, 1986.*

Introduction

Medication caries is the increase in caries and related dental problems in children as a result of the long-term administration of medicines sweetened with sucrose. The decay may be serious enough to result in dental sepsis, extensive dental restoration or extraction.

Children on long-term medications often suffer from serious diseases, e.g. cardiac or gastrointestinal disorders, rheumatic fever, seizures. Dental decay would seem to be one of their least concerns. Medication caries is serious and for some children may even be life-threatening. It also need not occur. There are substitute sweeteners that fulfill some of the functions of sucrose in medications, yet pose less danger to teeth. One sweetener has been shown to actually contribute to a reduction in dental caries.

A survey by the Toronto General Hospital in 1984¹ found that sucrose is the primary sweetener in most medications manufactured in

Canada and that its content ranged from 25 to 60%. Sucrose not only makes medicine taste better, which has obvious advantages when administering to children, but it also acts as a preservative, an anti-oxidant, a solvent, a demulcent and a bulking agent. Sucrose is inexpensive, easy to process and available in many different forms.

In addition to dental implications, the use of sucrose in medication has other disadvantages. Sucrose solutions crystallize during storage. They allow sedimentation and caking and cannot be used in medications for diabetics.

Figure I shows the sucrose level of 19 commonly prescribed medications. More than half of these medications have a sucrose content greater than 50%.²

This problem is not confined to prescription drugs. Many over-the-counter drugs, such as cold syrups, lozenges, and children's chewable vitamins, have high sucrose levels and may in fact contribute more to the problem of medication caries than do prescription drugs.

Landmark Study

Medication caries has been the subject of extensive research. The landmark study of the subject was conducted in 1979 by two British specialists, Dr. Graham J. Roberts, a senior lecturer with the Department of Children's Dentistry and Orthodontics, at The Royal Dental

Hospital, London, and Dr. I.F. Roberts, with the Department of Child Health, at St. George's Hospital, London. They examined two groups of children with chronic medical disorders – a study group of 44 who had been taking syrupy medicines for at least six months and a control group of 47 children matched for medical disorder, age and socio-economic background. Figure II shows the results in terms of the frequency of affected tooth surfaces in relation to age, with the incidence of affected tooth surfaces being particularly severe in older children. Overall, the study group was found to have 244 affected surfaces, which included 15 extractions. The control group suffered from only 65 affected surfaces and required no extractions.³

The group of children most at risk from medication caries are the hospitalized and the handicapped. They are ingesting sucrose several times a day with their medications, which is far more cariogenic than taking the same quantity of sucrose just once a day. The sucrose remains on the teeth to interact with plaque and over time creates acid which eventually demineralizes tooth enamel.

In addition, these children are a group for whom dental treatment is most difficult and hazardous. Many risk further complications if they must also undergo extensive dental work. Patients with heart disease,

for example, or conditions such as hydrocephalus are at risk from the spread of infection. There is an anesthetic risk associated with children suffering from diabetes or asthma and other respiratory diseases. There are also a number of diseases, eg haemophilia, where patients are at risk from bleeding. It is often difficult to achieve cooperation with children with mental or physical handicaps or who suffer from hyperactivity.^{4,5}

Dental care seems to be fairly low on the list of priorities of parents with chronically ill children. The Roberts study³ found that only 35% of the children were receiving regular dental care and only 7 of the 91 children were being given fluoride supplements.

Steps to Alleviate Medication Caries

There are many steps that can be taken to alleviate medication caries. Medical and nursing staff education is critical, particularly among those who work with small children. Physicians should be aware of the sugar levels of drugs and, whenever

possible, prescribe medications without sucrose. Similarly, parent and patient understanding is equally important.

Dental decay caused by sucrose in medications tends to follow a unique pattern in which the maxillary incisors, and the first and second maxillary molars, are affected first. Children must be encouraged to rinse their mouth and brush their teeth immediately after medication in order to reduce the sucrose effects.

Substitution of Sucrose in Medications

Substitution of Sucrose in Medications

However, in the real world, it is difficult enough to get children to brush after meals, let alone after taking medication. The best way to eliminate medication caries is simply to remove the sucrose from drug products and replace it with non-cariogenic sweeteners. And

Figure I

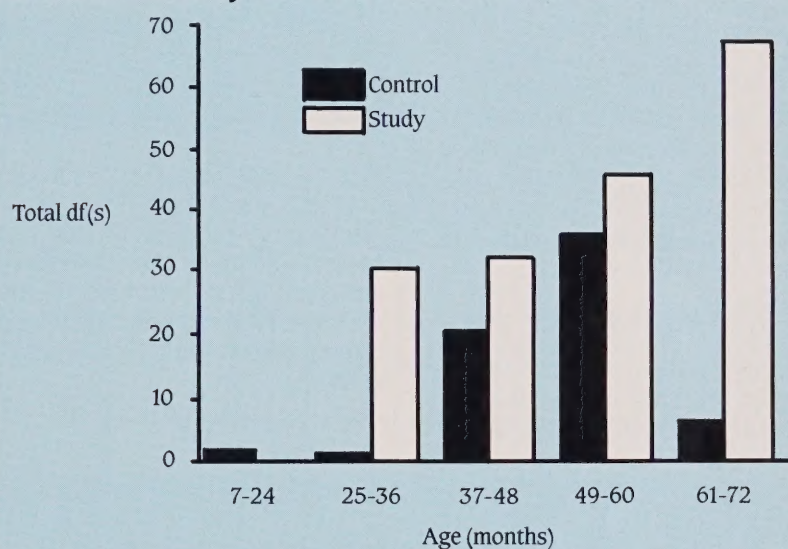
Sucrose content of commonly prescribed liquid medications

Medication	Sugar content %
Actifed, syrup	70
Brondecon, elixir	46
Bronkolin, elixir	41
Chlor-Trimeton, expectorant	60
Compazine, syrup	70
Compocillin-VK	61
Dexedrine, elixir	15
Dilantin-30, suspension	21
Dimetapp, elixir	0
Gantrisin, suspension	55
Gantrisin, syrup	70
Ilosone, liquid	40
Lanoxin, elixir	30
Phenobarbital, elixir	13
Robitussin, syrup	15
Rondec, DM, syrup	74
Sudafed, syrup	70
Thorazine, syrup	84
V-Cillin K, solution	60

Source: R.J. Feigal, University of Minnesota (1982)

Figure II

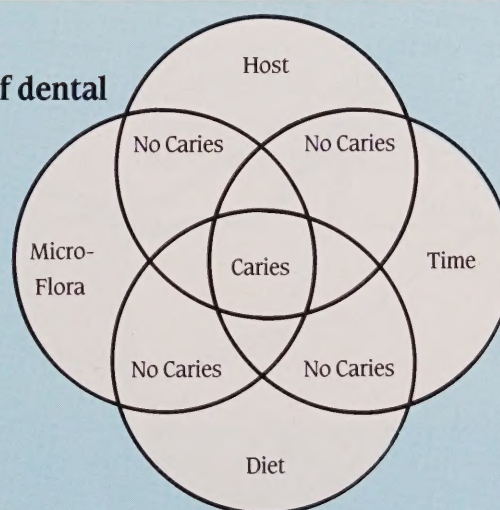
Landmark study of effect of medication on dental caries



Source: G.J. Roberts, The Royal Dental Hospital of London, et al (1981)

Figure III

Etiology of dental caries



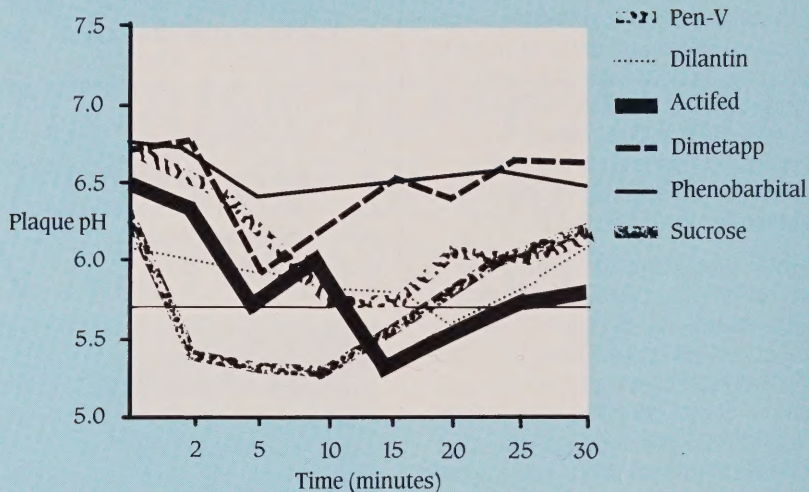
Source: M.C. Alfano, Fairleigh Dickinson University (1980)

indeed, there are several such substitutes available, the most desirable being among the group known as the polyols. These include sorbitol, mannitol, maltitol and xylitol. Sorbitol, for example, is among the most commonly used nutritive sweeteners and is used extensively in sugarless chewing gum. Xylitol is not only as sweet as sucrose, but in fact is effective in the prevention of dental caries.⁶ It is a natural sweetener and occurs in a number of fruits and vegetables.

To appreciate the difference between the effects of these sweeteners compared with sucrose, it is important to take a brief look at the cause of caries. Caries tend to occur when four factors are present.⁷ These are a susceptible host, or the mouth; a cariogenic microflora, or bacteria, on the tooth surface; the presence of fermentable carbohydrates such as sugar in the oral cavity; and, finally, enough time for these factors to interact and produce acids. (Figure III).

A diet high and frequent in consumption of fermentable carbohydrates will interact with these other factors, producing acids and polysaccharides, which are the

Figure V
Plaque response to sucrose and five liquid medications



Source: R.J. Feigal, University of Minnesota (1982)

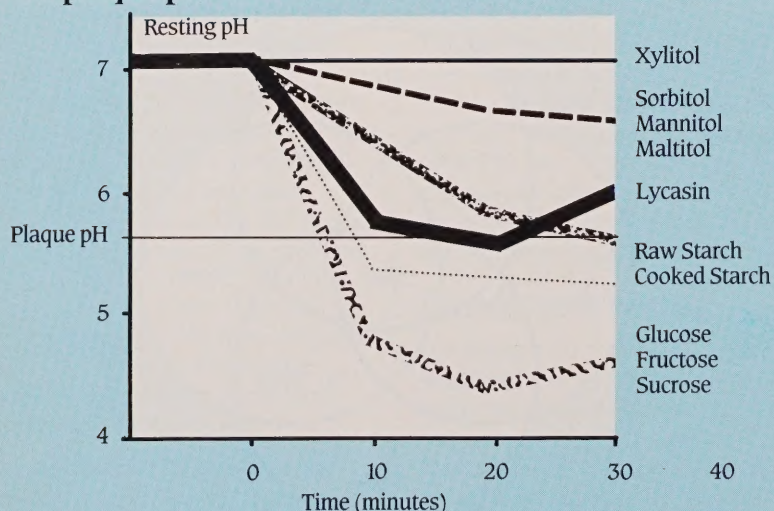
substrates for plaque development. Over time, these acids lower the plaque pH to critical levels, allowing bacteria to ferment carbohydrates and creating a growth substrate in which bacteria multiply rapidly and cause demineralization of the tooth enamel.

With the progression of time, glucose, fructose and sucrose all produce a significant drop in pH below the critical levels of 5 to 5.5. There is also a slight drop in pH levels associated with consumption of sorbitol, mannitol and maltitol. However, this is still well above the critical levels. Xylitol, on the other hand, causes a slight increase in resting pH levels. (Figure IV.) Saliva levels and the plaque proportions of streptococcus mutans are reduced. Xylitol also affects the quality of plaque, making it less adhesive and making cleaning tooth surfaces easier.

This point is significant because streptococcus mutans is the main decay-causing organism. There are many bacteria present in the oral cavity, but only a few ferment sucrose, which in turn lowers pH and initiate caries. Figure V slows the plaque response to sucrose and to five common medications - phenobarbital, Dimetapp, Actifed, dilantin and Pen-V. All but phenobarbital have an effect similar to sucrose on pH levels.

Xylitol, unlike sucrose, cannot be fermented by the bacteria and thus is not able to form the acid that

Figure IV
Effect of various sucrose substitutes on plaque pH



Source: D. Birkhead, University of Lund, et al (1979)

deteriorates tooth enamel.⁸ In addition, xylitol actually suppresses the size of colonies of streptococcus mutans.⁹ The three photographs show streptococcus mutans colonies magnified forty times. The photograph on the left indicates the size of colonies following introduction of sucrose. The xylitol challenge is shown in the middle photograph, and the picture on the right indicates the normal size of the bacteria in agar. The mutant colonies are greatly enlarged with the introduction of sucrose in the mouth but substantially smaller than normal with xylitol. This ability to suppress the size of bacteria colonies is not found in any other sweetener. Sorbitol and mannitol, although less cariogenic than sucrose, can nonetheless be fermented by oral bacteria.

Figure VI compares the effect on tooth enamel of a sugar containing throat tablet, and sorbitol and xylitol tablets. With the introduction of sucrose, the pH level drops into the danger area where demineralization of tooth enamel begins. The sorbitol tablet results in a small drop in pH levels, but not enough to cause demineralization. Finally, with a xylitol-containing throat tablet, pH levels remain stable on the tooth surface.

Effect of Xylitol on Incidence and Progression of Dental Caries

This ability to maintain safe and stable pH levels means that xylitol is non-cariogenic and has in fact been clinically proven to be so in several studies.⁵

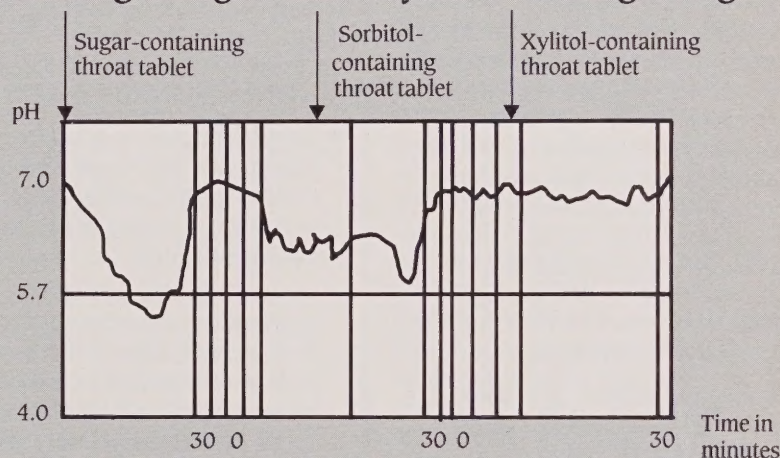
The two most comprehensive studies were conducted in the early 1970's at the University of Turku in Finland.¹⁰ In the first, participants were divided into three groups. The first group ate food sweetened with sucrose; the second ate food

sweetened with fructose, and group three ate food in which all sugar was replaced with xylitol. The chart in Figure VII shows the results rather dramatically. At the end of two years, the number of new caries registered as decayed, missing or filled increased 7.2% among the sucrose group and 3.8% among the second or fructose group. Virtually no caries at all was registered in the xylitol group.

The second Finnish study compared the effects of sucrose and xylitol sweetened chewing gums in conjunction with a regular diet. The group given the sucrose sweetened chewing gum experienced a

Figure VI

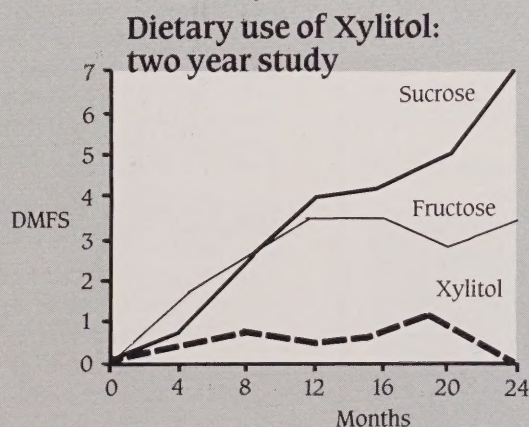
Demineralisation of tooth enamel: comparison of sugar containing lozenge versus a Xylitol containing lozenge



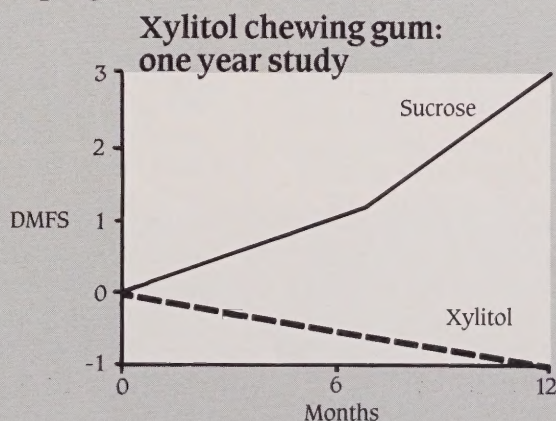
Source: T. Imfeld, University of Zurich (1983)

Figure VII

Effect of Xylitol on incidence and progression of dental caries



Source: A. Scheinin et al, University of Turku (1975)



significant increase of carious lesions, while the xylitol group actually registered a decrease. The xylitol group also exhibited marked reductions in dental plaque formation and in the count of all microorganisms. This is particularly remarkable as the use of xylitol in the test was limited to the chewing gum. The participants continued to eat a regular diet which contained sucrose.

These results have been repeated in subsequent research. A study conducted by the Faculty of Dentistry at the University of Montreal and the Montreal General Hospital, for example, found that children who chewed xylitol-sweetened chewing gum had a significantly lower rate of caries than did the control group which was not given the gum.¹¹ The study also indicated that the incidence of caries decreased as the percentage of xylitol in the chewing gum increased. Further research conducted in cooperation with the World Health Organization in French Polynesia and Hungary^{12,13} showed very dramatically that children who consume xylitol sweets regularly showed significantly lower caries increments compared to their peers.

Xylitol and sorbitol have been approved in Canada for use in medications. However, manufacturers have been slow to adopt them as substitutes for sucrose. They are somewhat more expensive than sucrose and manufacturers have so far not experienced sufficient demand to justify using alternative sweeteners for the majority of children's medications.

Fortunately, there is now growing awareness of the problem. Last year, the Canadian Dental Association issued a policy statement on sweeteners in medications¹⁴ which urges health care practitioners to prescribe drugs employing non-cariogenic components. The CDA suggests that the Pharmaceutical

Manufacturer's Association and the proprietary drug association be made aware of the high risk of decay associated with most prescription and over-the-counter drugs and be encouraged to employ alternative sweetening agents. The Association also calls on Health and Welfare Canada to promote the use of these substitutes in medications.

The Canadian Pharmaceutical Association, representing pharmacists, has also been active in educating provincial pharmacy organizations on the dangers of medication caries and it has developed an auxiliary warning label for high sucrose content products.

Recommendations

Health care professionals, including dental hygienists, play an important part in helping alleviate the danger of medication caries.

- First, by helping to educate parents and urging patients to exercise proper oral hygiene, particularly in association with medication, and
- Secondly, by discussing the problem with colleagues. Health professionals should be aware of how dental disease and subsequent medical complications can create further the possibly life-threatening problems for the chronically sick child.
- Dental hygienists can be effective in lobbying manufacturers to change formulations and make a wider variety of sucrose-free preparations available. Manufacturers need to see evidence of demand.
- And, finally, an organization such as the Canadian Dental Hygienists Association would be very influential in lobbying government for stricter regulations on the use of sugar in children's medications. ■

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PREDICTORS OF PERFORMANCE IN DENTAL HYGIENE EDUCATION

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variables considered in this study are listed in table 1 and the independent variables in table 2.

Results

Multiple linear regression analysis indicated that high school overall average (HSOA), post secondary school overall average (PSOA), acceptance with post secondary school education (ACCPT), and individual based extracurricular activities (EXACT) accounted for 39% of the variance in first year didactic performance (GPA-1). (figure 1) For second year didactic performance (GPA-2D): HSOA, EXACT, ACCPT, and post secondary school science average (PSSA) predict 40% of the variance. (figure 2) However, for clinical performance in second year (GPA-2C), the top four predictors: EXACT, ACCPT, AGE, and high school science average (HSSA) accounted for a mere 10% of the performance variance. (figure 3) Total second year grade point average (GPAT), a combination of clinical and didactic performance, is influenced by both academic and non-academic predictors. (figure 4)

Introduction

Selecting students most likely to successfully complete a dental hygiene programme is a problem faced by admissions committees across Canada. Little information is available concerning predictors of dental hygiene student performance.

Researchers in dentistry have determined that the academic score of the Dental Aptitude Test and entering grade point averages are the best predictors for academic performance.^{1,2} Similarly, dental hygiene research indicates that didactic grades are best predicted by the entering grade point average and the Dental Hygiene Aptitude Test.³ Researchers in both disciplines agree that clinical performance is difficult to predict. These studies cite data from American schools and may not be generalizable to Canadian programmes.¹⁻⁵ The purpose of this study was to determine the relative effectiveness of various predictors of performance in both didactic and clinical dental hygiene.

Method

For this study, data was obtained from the application forms and performance records of the graduates from the School of Dental Hygiene at Dalhousie University from 1979-1985 (N=204). Dalhousie offers a two year programme of study leading to a Diploma in Dental Hygiene and chiefly serves the four Atlantic provinces. The traditional application form has requested information such as personal data, academic records, letters of reference and a submission titled "Why I want to be a dental hygienist". Admissions committees have chiefly relied upon academic performance when trying to select those candidates most likely to successfully complete the two year programme with at least a 2.0 grade point average. The dependent

TABLE 1
DEPENDENT VARIABLES

GPA-1	GRADE POINT AVERAGE	FIRST YEAR DIDACTIC
GPA-2D	GRADE POINT AVERAGE	SECOND YEAR DIDACTIC
GPA-2C	GRADE POINT AVERAGE	SECOND YEAR CLINICAL
GPAT	GRADE POINT AVERAGE	SECOND YEAR TOTAL

TABLE 2
INDEPENDENT VARIABLES

AGE	upon acceptance: 1=16-17, 2=18, 3=19, 4=20.5=21-23, 6=24-25, 7=over 26
HSLOC	high school location: 1=urban, 2=rural
RANK	rank in high school
EXACT	extracurricular activities: 1=group based, 2=individual based
WAIVER	advanced standing for courses
ACCPT	accepted from: 1=high school, 2=with post secondary school education
LAFH	lived away from home before 1=yes, 2=no
PEHF	previous experience in health related field
Academic records:	
HSOA	high school overall average
HSSA	high school science average
PSSA	post secondary school science average
PSOA	post secondary school overall average

Pearson's correlation for the dependent variables showed correlation between first and second year didactic grades. (table 3). Although the correlation between clinical performance in second year and didactic performance in both first and second year was significant, it was only about half as high. Since second year total grade point average is composed of clinical and didactic performance, it followed that there would be a high correlation with each of the other dependent variables.

The means and frequencies for all the independent variables were calculated for each of the dependent variables. Previous experience in a health related field, age of acceptance over 20, course waivers, and graduation from rural high

Figure 1: Multiple Regression GPA-1

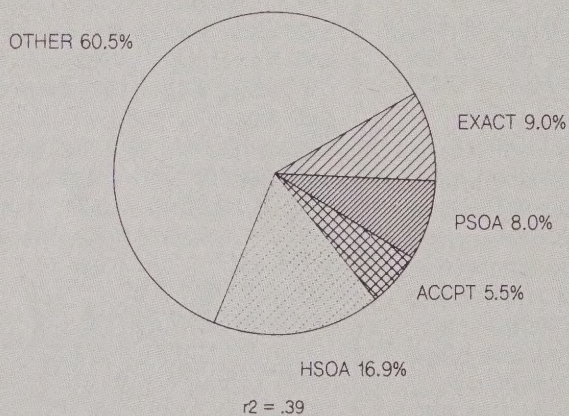


Figure 2: Multiple Regression GPA-2D

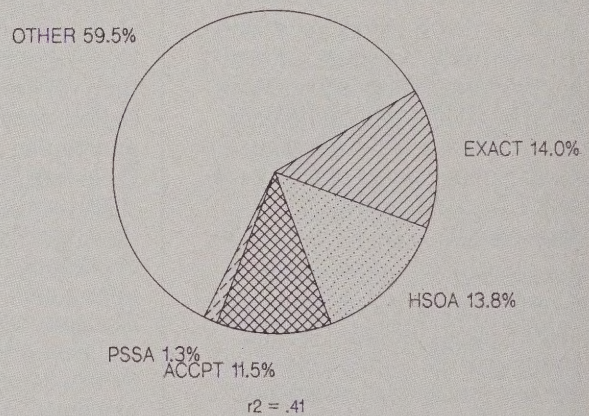


Figure 3: Multiple Regression GPA-2C

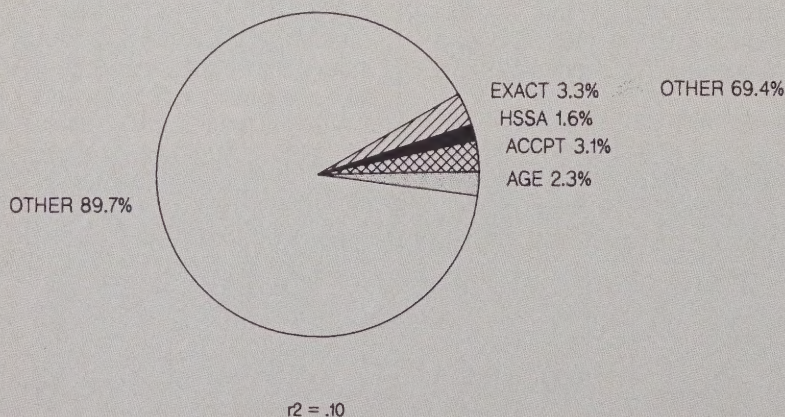


Figure 4: Multiple Regression GPAT

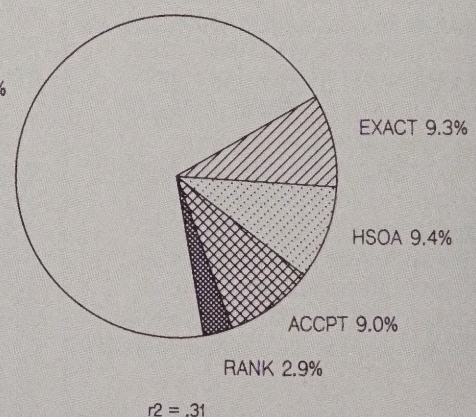


TABLE 3
PEARSON'S CORRELATION

	GPA-2D	GPA-2C	GPAT
GPA-1	.59	.32	.54
GPA-2D		.29	.77
GPA-2C			.69

schools were all variables showing slightly higher mean grade point averages but none of these were significantly higher.

The mean grade point average for all dependent variables was slightly higher for students who had listed individual based extracurricular activities but only grade point average second year didactic was statistically significantly higher. ($P=.05$) Similarly, students accepted with post secondary school education showed higher mean grade point averages with a significant difference for first year didactic grade point average. ($P=.006$) However, the t-test between those who had lived away from home and those who hadn't, showed a significant difference for all dependent variables. The indications were that those who have lived away from home before acceptance to the programme perform significantly better for all variables. ($P=.016$)

Discussion

From these results, it appears that academic performance records are predictors of didactic performance, and in Atlantic Canada, there are no significant differences between records from urban and rural high school locations. Those students with academic waivers and who are older do not perform significantly differently than their classmates.

However, those students who have lived away from home previous to their acceptance to the programme have performed significantly better for all variables; students who

indicated individual based extracurricular activities have significantly better grade point averages for second year didactic; those accepted with post secondary school education performed significantly better in first year.

This study confirms that academic records are good predictors of performance for the didactic portions of the dental hygiene programme. The best predictors for grade point average in first year were: high school overall average (HSOA), individual based extracurricular activities (EXACT), post secondary school overall average (PSOA), and acceptance with post secondary school education (ACCPT). For second year didactic, the best predictors were: EXACT, HSOA, ACCPT, post secondary school science average (PSSA); and for total second year: HSOA, EXACT, ACCPT, rank in high school (RANK). However, it appears that of the predictors presently available to admissions committees, none are significant in their identification of students who will perform well clinically. In addition to these predictors, since students

who have lived away from home before performed significantly better than their classmates, admissions committees may do well to consider these students, as well as those with post secondary school education, and those with experience in a related health field when deciding between students with very similar academic records.

It would be interesting to compare the results of similar regression studies from other programmes in Canada. Individual based extracurricular activities appear to be a consistent predictor. It may also be useful to recode extracurricular activities for those indicating finer motor skills (such as piano, knitting) to determine whether this is a predictor for clinical performance. ■

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SELF ASSESSMENT TEST

DENTAL RADIOLOGY TROUBLE SHOOTING

INSTRUCTIONS:

For each of the following radiographs:

- 1) Identify the error(s)
- 2) State the probable cause(s)
- 3) Describe the corrective technique(s)



1



2



3



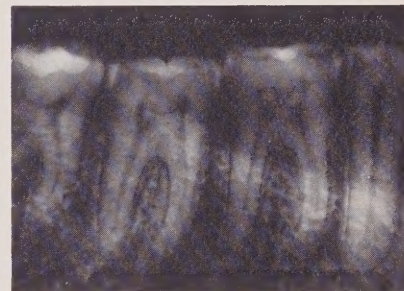
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6



7



8



9

(Compare your answers with those
on the following page). ►

SELF ASSESSMENT TEST

DENTAL RADIOLOGY TROUBLE SHOOTING

ANSWERS

Radiograph	Error(s) Identified	Probable Cause(s)	Corrective Technique(s)
1)	- "ski slope", sloped occlusal plane	- improper patient positioning (&/or) - improper film placement	- seat patient with occlusal plane parallel to floor - ensure film does not tip during patient closure
2)	- discolored film (brownish/green)	- films touching during processing	- separate films in double film packs - feed only one film per slot in peripro developer - wait approx. one minute between films feed into Phillips' developer
3)	- occlusal overlap	- too much positive vertical angulation	- decrease positive vertical angulation to approx. +5 degrees
4)	- partial image	- film bent, preventing exposure of corner portion of film	- gently roll, do not fold corners of film back preventing exposure
5)	- foreshortening	- too much positive vertical angulation	- decrease positive angulation, until central ray is perpendicular to an imaginary line bisecting the angle formed by the film and the long axis of the tooth (approx. +30 degrees)
6)	- proximal overlapping	- improper horizontal angulation - position indicating device (cone) was angled too much to the distal	- leaving PID stationary, move tube head slightly forward
7)	- too dense image	- too long exposure time - too warm developing solution - too long developing time	- decrease exposure time - check temp. of developing solution - check processing machine for malfunction
8)	- artifact on film	- films touching during processing	- check tanks for loose films in solution (Also seek #2 for other possible corrective techniques)
9)	- radiopaque line	- foreign object blocking x-rays	- remove patients glasses when exposing films. (Also dental appliance, jewelry, etc. may cause some effect)

Submitted by:
Maxine H. Borowko,
S.D.T./R.D.H.
S.I.A.S.T., Wascana Campus
Regina, Saskatchewan

Emergency Guide for Dental Auxiliaries

Janet Bridger Chernega, C.D.A., B.S.
Delmar Publishers Incorporated,
Albany, New York, 1987
180 pages, Illustrations
\$14.95 U.S.,
Instructor's Guide - \$4.40 U.S.

Author Janet Bridger Chernega has done an outstanding job of preparing this guide to emergency procedures. As the author states in the Preface, this text has been designed as a practical guide for students in learning the basic skills in emergency care, and as a reference text for the practicing clinician. With this in mind, the author has limited the description of emergency situations to those basic techniques required for prevention and treatment of emergencies in the dental office.

There are fourteen chapters which can be divided into three sections. Chapters 1 and 2 deal with preliminary procedures such as taking vital signs, recording the health history and office preparation. Chapters 3-12 detail specific emergency protocol for Syncope, Asthma attacks, Epileptic seizures, Diabetes related emergencies, Allergic reactions, Angina attacks, Myocardial Infarction, and Stroke. As well, the chapter on Myocardial Infarction details Cardiopulmonary Resuscitation. The remaining two chapters are devoted to Occupational Hazards and Legal Problems associated with emergency care.

Each chapter is structured under specific headings starting with *Key Terms* and *Objectives*, and ending with a *Summary*, *References* and *Review Questions*. Through organizing each chapter in this manner the author has provided a clear sequence for learning, identifying what the student is expected to learn and then reinforcing the learning through a

summary and review. The review sections are designed as "problem situations", encouraging the student to transfer the theoretical principles to clinical practice.

Those chapters pertaining to specific emergencies include the causes of the condition, symptoms of a pending emergency and the required emergency protocol.

The chapter on *Occupational Hazards* focuses on AIDS, Herpetic Whitlow, Hepatitis B, mercury contamination, aspiration of foreign objects, broken needles, and nitrous oxide sedation.

Legal Problems of Emergency Care is a short chapter covering the responsibilities of the dental team and prevention of possible legal complications arising from emergency care. This chapter provides basic information only and the author recommends that each clinician be knowledgeable of their particular state/provincial laws.

The body of the text is supplemented by numerous black and white illustrations of a good quality that depict equipment and actual dramatizations of emergency procedures.

Overall, it is evident this text has been very well planned. The author clearly established the purpose and objectives of the text, subsequently producing a quality resource for dental educators, students and practicing clinicians.

Reviewed by:
Patricia L. Dray
A.A., G.D.H., B.Sc.D.H.
Instructor
Division of Dental Hygiene
University of Alberta

Canadian Dental Law

Lorne E. Rozovsky
160 pages \$35.00 Approx.
ISBN: 0-409-86335-1
Hardcover

With his eighth medico-legal book Lorne E. Rozovsky has written a concise book that will be useful for the dental profession.

This book becomes very useful to all dental health care providers. The first chapter deals with Standard of Care and Negligence. Chapters 2 and 4 discuss interdisciplinary relationships, licensure and registration on an individual province basis. This not only gives the reader an indication of what regulates his or her own province but also gives a comparison of how other practitioners are governed.

I found the chapter on Dental Records extremely well written and useful as quick reference material for any office. An excellent chapter on fluoridation gives sound advice to anyone involved in a fluoridation issue.

The final chapter How to Avoid Dental Malpractice deals with the American and Canadian malpractice scene. This chapter also deals with why patients sue and lists twenty ways to prevent a malpractice suit. Rozovsky also advises what to do when being sued.

I found the 127 pages very easy to read. The frequent reference to cases only substantiated information given. If not a must for every dental school or auxiliary training program, this book is a must for every dental office in Canada.

This reviewer highly recommends this text for everyone involved in dentistry in this country.

Reviewed by
Rhonda Hunter R.D.H.
Private Practice in Saskatoon

Oral Development and Histology

Editor: James K. Avery
Publisher: Williams and Wilkins,
1987, 380 pages Approx. \$50.00

Teachers and students involved in the area of microscopic anatomy of the oral tissues will appreciate this concisely written textbook. This textbook maintains its original aim of presenting basic principles of microscopic anatomy and the development of the oral tissues to meet the needs of dental and dental hygiene students. These basic concepts are then tied in with their effects on related clinical procedures making the book more interesting and practical for the professional.

The chapters are written by a host of distinguished contributors in addition to the Oral Histology Laboratory at the University of Michigan. Important topics covered include: development, maturation and aging of the craniofacial region; development of the teeth and supporting structures; structure of teeth; structure of soft tissues; structure of periodontium; salivary glands, saliva, pellicle, plaque and calculus; temporomandibular joint. Each chapter consists of such features as introductory comments, objectives, an outline of the chapter subject matter, a summary, a self-evaluation review and a good list of recommended reading for more diligent students. The abundant line diagrams are excellent and well-coordinated with the text and the photomicrographs. The subject of gerontology, theories of the aging process, changes in the oral mucosa and periodontal structures with age, are all a welcome addition in light of the dentist's and dental hygienist's increasing responsibility to the elderly.

This textbook more than adequately succeeds in its aim as an introduction to microscopic anatomy and the development of the oral tissues for students and teachers.

Reviewed by
Evie F. Jesin,
Dip. Dent. Hyg., B.Sc., E.D.D.H.
Teaching Master,
George Brown College,
Toronto, Ontario.



11th INTERNATIONAL SYMPOSIUM ON DENTAL HYGIENE

OTTAWA, ONTARIO, CANADA
JUNE 29 - JULY 1/89

LAST CALL FOR ABSTRACTS

Abstracts are being solicited for the 11th International Symposium on Dental Hygiene. members of the Dental Health Professions, as well as other disciplines and countries are invited to submit abstracts.

PAST, PRESENT and FUTURE has been selected as the theme.

Submissions will be reviewed and selected for either paper or poster sessions.

ALL COPIES OF ABSTRACTS MUST BE RECEIVED by MAY 30, 1988.

For further information contact,
The Scientific Committee
11th International Symposium
on Dental Hygiene
c/o Ninfa Nicol

3 Royal Birkdale Green, R.R. #7
Nepean, Ontario Canada K2H 7V2



OTTAWA '89
11th INTERNATIONAL
SYMPOSIUM ON
DENTAL HYGIENE
JUNE 28 - JULY 1, 1989

PAST, PRESENT, FUTURE OF DENTAL HYGIENE

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City of Lethbridge Health Unit
801 - 1st Avenue South
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Please contact:
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1320 Carling Ave.
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Submit applications to: Dr. A.J. Nicholson, Director, Fort McMurray & District Health Unit, 9921 Main Street, Fort McMurray, Alberta, T9H 4B4.

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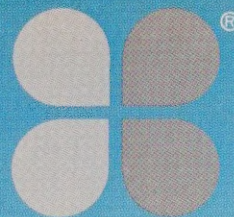
Fifty (50) words or less, per ad. minimum \$20.00. Each additional word 50¢. Payment must accompany order or ad will not be placed. Closing date for receipt of copy is first of the month preceding month of publication — February 1 for Spring issue. May 1 for Summer issue. August 1 for Fall issue and November 1 for Winter issue. Display classified rates based on ½ page (\$275)

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There's only one Right Kind® Dental Floss

Butler



**Floss should be judged
by how well it
removes plaque.
Not by its strength.**

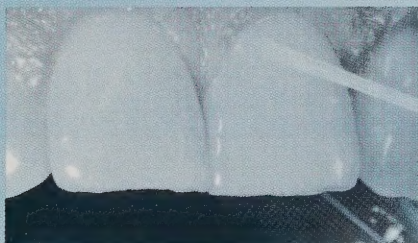
The strength of a floss is merely the measure of the size of the floss—nothing more, nothing less.

Butler's research has designed a variety of flosses with not only strength, but also with reduced diameters to allow easy insertion between tightly spaced teeth. Examine the flosses in the photo, Butler is on top with two other major brands below. Butler's floss is engineered with a slight "S" twist which permits easy spreadability*. This feature provides three important benefits.

First, the floss wraps and conforms to the shape of the tooth allowing it to be easily drawn through tight contacts and into the sulcus area where plaque accumulates and flossing really counts.

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ADA

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+ Proven by actual independent
tests. Details available upon
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Butler



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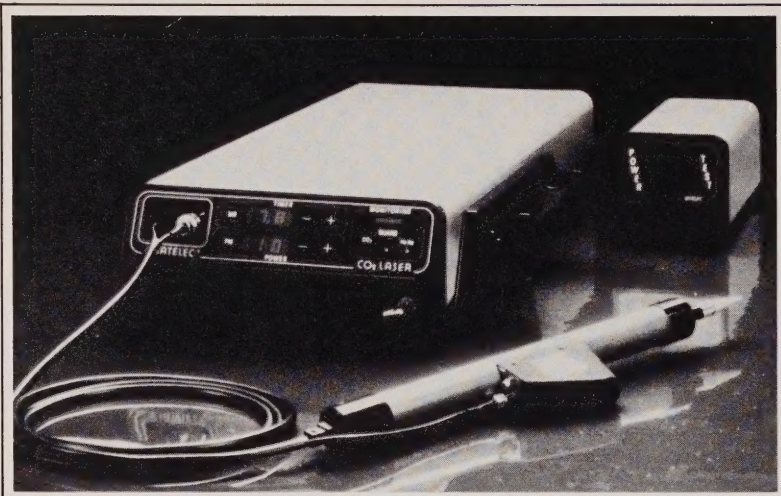
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For more information, contact:
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159 Dwight Place
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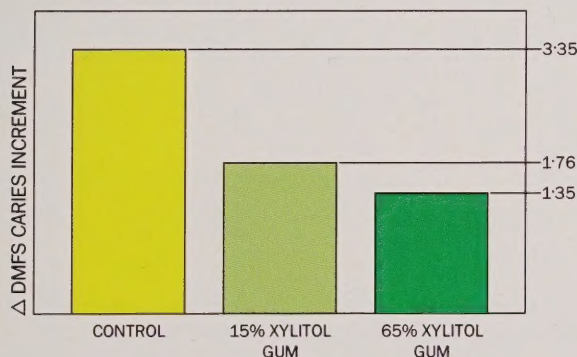
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Now, new studies prove that Trident with **xylitol** helps fight cavities.

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Independent trials¹ conducted by international



This one-year study conducted by the Montreal General Hospital and the University of Montreal, Department of Preventive and Community Dentistry, on 433 eight and nine year old Montreal children clearly demonstrates a protective effect of xylitol-containing chewing gum in a school caries preventive programme. (The control group had a normal diet and preventive programme.)

institutions such as the World Health Organization have substantiated existing evidence, gathered through concentrated research over the last ten years, that indicates xylitol cannot be metabolized by decay-causing microflora in the oral cavity.

Trident Sugarless Gum, which contains xylitol², is now being recognized as more than just a harmless treat. When used at least twice a day, it has been proven to be an important adjunct to the regular oral hygiene programme of brushing, flossing, rinsing, and having fluoride treatments plus biannual dental check-ups.

Now, you can recommend Trident as an effective way to reduce the threat of acidogenic action after carbohydrate snacking, especially for young, caries-prone patients. And, the great new taste of Trident means that patient compliance is assured.

Trident. More than just a treat.



MORE THAN JUST A TREAT

¹ Reg. TM. Warner-Lambert Company, Adams Brands Mfg. Auth. User.

²The Finnish Xylitol Study, 1982-1985. The French Polynesian WHO Study, 1979. The WHO Hungarian Study, 1981-1984. The Montreal Chewing Gum Study, 1987. Case studies available upon request.

³Trident Peppermint, Cinnamon, Freshmint, and Fruit flavours only.

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1. Data on file at Procter & Gamble.

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**RECOMMEND
THE SERIOUS
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THAT'S FUN
FOR KIDS.**



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"Crest contains sodium fluoride which is, in our opinion, an effective decay preventive agent, and is of significant value when used in a conscientiously applied program of oral hygiene and regular professional care." CANADIAN DENTAL ASSOCIATION

JAN 19 1989

PROBE

Volume 22 no. 2

June 1988 juin

C.D.H.A. NATIONAL CONVENTION

AUGUST 21-24, 1988 EDMONTON, ALBERTA

CONGREGATE IN '88!

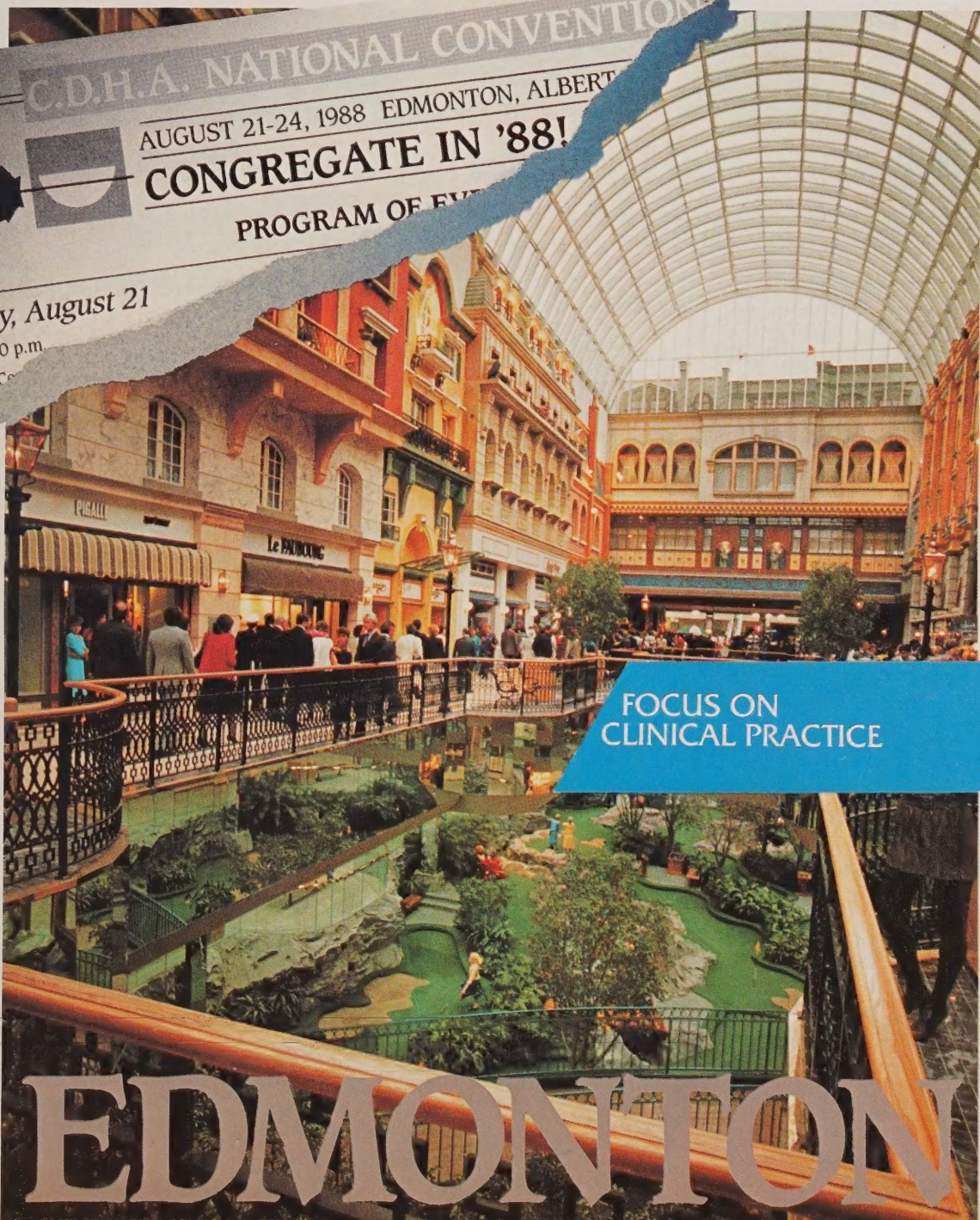
PROGRAM OF EVENTS

Sunday, August 21

7:00-10:00 p.m.

Opening Ceremony

Registration

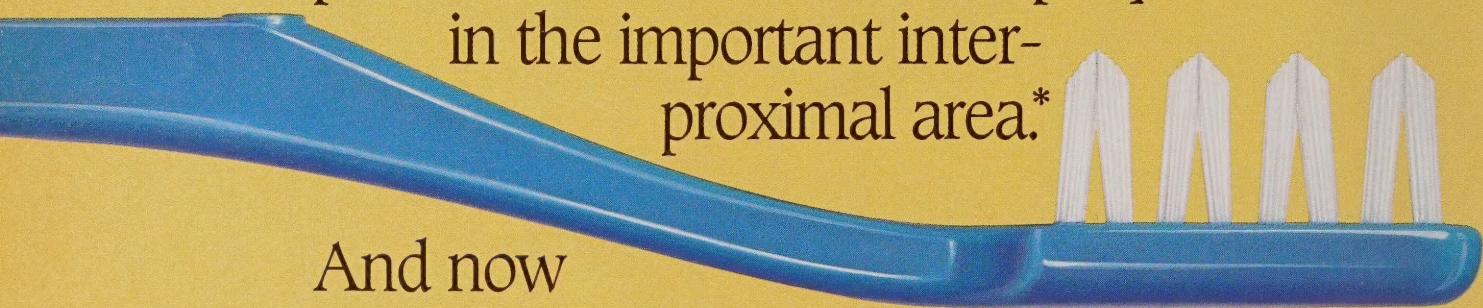


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*"Evaluating cleaning efficiency of different toothbrush designs and textures". Sam L. Yankell et al., University of Pennsylvania, J. Soc. Cosmet. Chem. (May/June, 1983)
"Access to interproximal tooth surfaces by different bristle designs and stiffness of toothbrushes." Per Nygaard-Ostby et al., Jordan, Oslo, Scand. J. Dent. Res. 1979.

"An in vitro study of the relative effectiveness of toothbrush cleaning/coverage." Sam. L. Yankell, University of Pennsylvania, J. Dent. Res. 1979.
"Role of brushing technique and toothbrush design in plaque removal." Axel Bergenholtz et al., University of Umea, Scand. J. Dent. Res. 1984.

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NEW COMPACT V (SOFT)

JORDAN JUNIOR V (SOFT)

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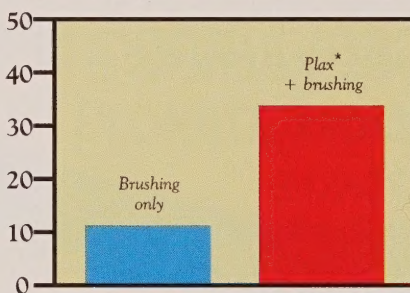
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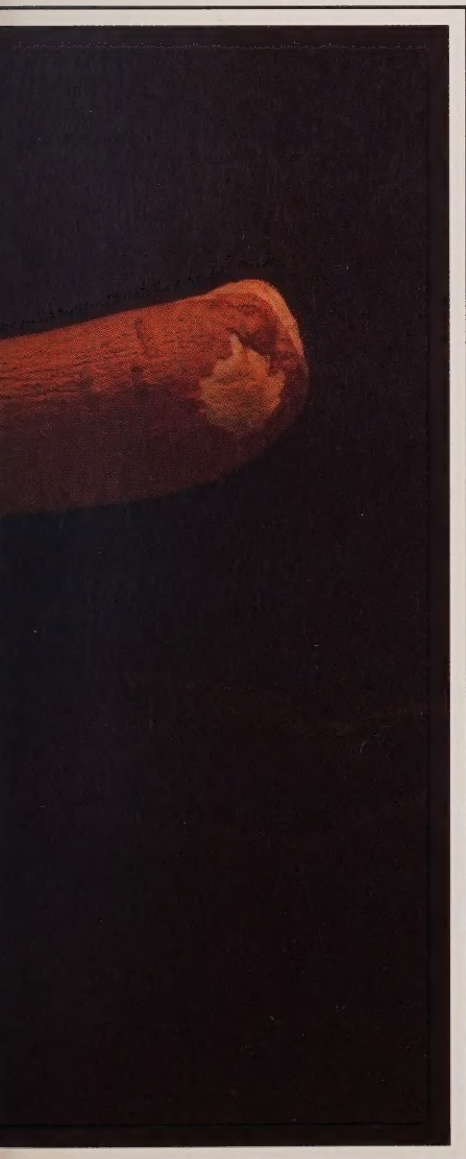
the greatest advance re since the siwak.

Plax* encourages compliance.

Pleasant-tasting and convenient, Plax* is easily incorporated into your patients' daily oral health care regimen.

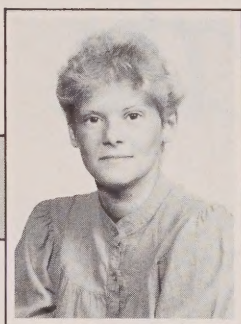
For best results, patients should rinse with 1 tablespoon (15 mL) of Plax* for 30 seconds *before* brushing with their regular dentifrice.

New Plax*. The anti-plaque, pre-brushing rinse that is making dental history.



Checks Plaque
Between Checkups.

PRESIDENT'S MESSAGE



Ellen Brownstone
B.A., R.D.H., M.Ed

My term as President of C.D.H.A. has come to a close and its appropriately time to reflect on the past year.

I have had the opportunity to further develop professionally and personally, to meet and interact with enthusiastic, intelligent and dedicated members of our Profession, to be involved in decision-making which attempted to both maintain the integrity of the Dental Hygiene profession and spark it to move forward and above all, to witness first-hand, a Profession which is on the edge of exciting advances in its historical development to serve the public.

The 1980's have seen some important changes related to dentistry. Most significant is the declining dental caries rate in North America and changes in periodontal disease patterns. Other factors, identified at a recent strategic planning conference of the Canadian Dental Association and Association of Canadian Faculties of Dentistry, include: demographics (eg: aging population), technological change, dental care delivery and payment systems (third party payment), legislative changes and changing roles of dental personnel.

These trends which have been evidenced in the 1980's and which will prevail through the rest of this century and into the 21st century, will

impact significantly on future Dental Hygiene practice. That is, future dental hygiene practice must address the dental needs and desires of the population, demographics, social and economic patterns, changes in technology, changes in disease patterns and dental care delivery, changes in legislation and at the same time continue to provide challenging and rewarding careers for dental hygienists.

The Dental Hygiene profession must assume the primary responsibility for identifying and defining the characteristics of the "future dental hygienist, dental hygiene practice and dental hygiene education". Similarly, the Dental Profession has begun to investigate and develop concepts of future dental practice, given the changes occurring in our society. The task of making projections into the future and then formulating a framework for new dental hygiene practice is a difficult one. It will require thorough analysis, synthesis and planning, human and financial resources and commitment.

C.D.H.A., as the organization representing Canadian Dental Hygienists, must commit itself to this most important task and include in its planning process representatives of all dental hygiene constituencies: practitioners, community health dental hygienists, educators, administrators, consultants, researchers and, members of the dental profession.

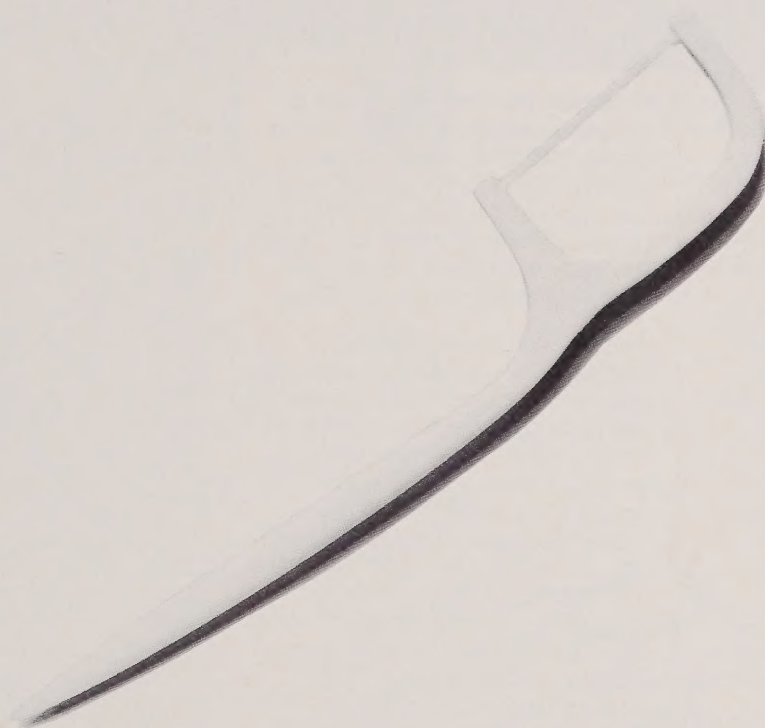
We have available to us valuable resources to employ in this process which include the Federal government Working Group reports on the

Practice of Dental Hygiene (1986) and Clinical Practice Standards (1988), and the current C.D.H.A./Johnson National Dental Hygiene Study describing an occupational profile of Canadian Dental Hygienists.

Canadian Dental Hygienists must respond to pending changes and trends in society in a proactive fashion; that is, identify, plan and facilitate dental hygiene practice in the future. If we do not behave in this necessary and responsible manner, the consequences may be overwhelming and undesirable.

Thank you C.D.H.A. for allowing me the opportunity to work for Dental Hygiene. ■

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Introducing E-Z FLOSS

E-Z Floss makes flossing easy. Plain and simple. E-Z Floss is an ideal supplement to any patient's flossing routine. Easy to use, it can travel with people on the go, help encourage children to floss more often, and assist the elderly and infirm who find conventional flossing difficult. E-Z Floss is available at most major drug retailers.



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E-Z Floss, P.O. Box 86801, North Vancouver, B.C. V7L 4L3 and you will receive 500 individually wrapped E-Z Floss patient samples. A regular \$25.00 value.

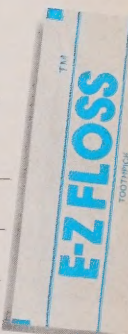
Name

Address

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Name of Employer Offer limited to one per hygienist.



Fran Cotton
Editor



Portability – Our Own ‘Free Trade’

The media has bombarded us with the issue of free trade – the issue has also received considerable attention across the border. Perhaps we, as dental health professionals, should look at an aspect of “free trade” a little closer to home – exactly – portability!! The longer I practice and the longer I teach, the less I understand provincial/state protectionism, especially from an educational point of view. We all know that there are good and bad practitioners in every field or discipline, but barring many good practitioners in order to weed out the one bad one, is tantamount to cutting off the whole finger to heal a hangnail!

A hygienist who has practiced successfully for a number of years in one jurisdiction with no complaints against her/him and who has maintained professional obligations such as continuing education credits and actively participated in professional associations, should be able to practice traditional hygiene in any Canadian province.

All schools in Canada and the U.S. adhere to the same basic curriculum – certainly there are regional differences, but these are not enough to sustain regional protectionism to the extent that it is practiced by Dental Boards in North America. Of course, this phenomena is not particular to hygiene, but to dentistry as well. Board exams are being used by some licensing bodies to discourage practitioners from moving to certain areas of the country in the hope that

they will choose to practice in underserved areas. There may be some merit to this, but it could also be in direct contradiction to individual rights.

Portability has long been a topic of concern especially in today's mobile society. Those of us who choose a partner in life must be sensitive to their goals and aspirations. This often means a family move that has to be geared to satisfy both careers. Licensing bodies don't make it easy!

Accreditation should facilitate licensure. The accreditation process ensures that educational programs meet specified standards in the areas of curriculum, faculty, teaching process, student evaluation and facilities. Without accreditation status, graduates of that school have difficulty gaining licensure in another jurisdiction. Therefore, programs undergo the rigorous process of accreditation, while licensing bodies continue to call the shots. True, health is a provincial affair, but if hygienists are not jeopardizing health in one province, how can it be assumed they would in another? Why is it that an educator is qualified to teach students, who upon graduation can automatically practice in an area, but the teacher is not welcome without sitting both a written and a clinical exam? Why is it that licensing bodies are so strict about the credentials of out-of-province dental hygienists but a blind eye is easily turned to unqualified personnel who may be practicing around the corner?

C.D.H.A. is committed to enhancing portability and endorses accreditation status as a nationally recognized credential. C.D.H.A. is pursuing the establishment of a national credentialing process for dental hygienists which ideally will facilitate transfer of licences from one province to another, providing good standing is validated in the original province.

Before we can attempt free trade with the United States we must establish portability amongst the Canadian provinces. Portability *is* ‘free trade’ for us! ■

SCIENTIFIC EDITOR

THIS IS A VOLUNTEER POSITION

C.D.H.A. is seeking a Scientific Editor – someone who is willing to make a commitment to publishing scientific articles relevant, but not limited to dental hygiene in private and public health practice.

JOB DESCRIPTION:

The successful candidate is one who has the ability to organize qualified reviewers & assess their recommendations related to the articles.

The successful candidate will be a member in good standing of C.D.H.A. and in touch with the research and academic communities. Duties will include soliciting scientific articles for publication, distributing them for review, and submitting approved articles.

The successful candidate will work with the Managing Editor to secure material for the “Abstracts”, “Alternatives” and “Self-Assessment” departments of the Journal. Additionally, he/she will answer letters to the Scientific Editor and write for the “Opinions” department.

QUALIFICATIONS:

- Knowledge of research and professional publication.
- Graduate of a recognized school of dental hygiene.
- Post Diploma preferred.

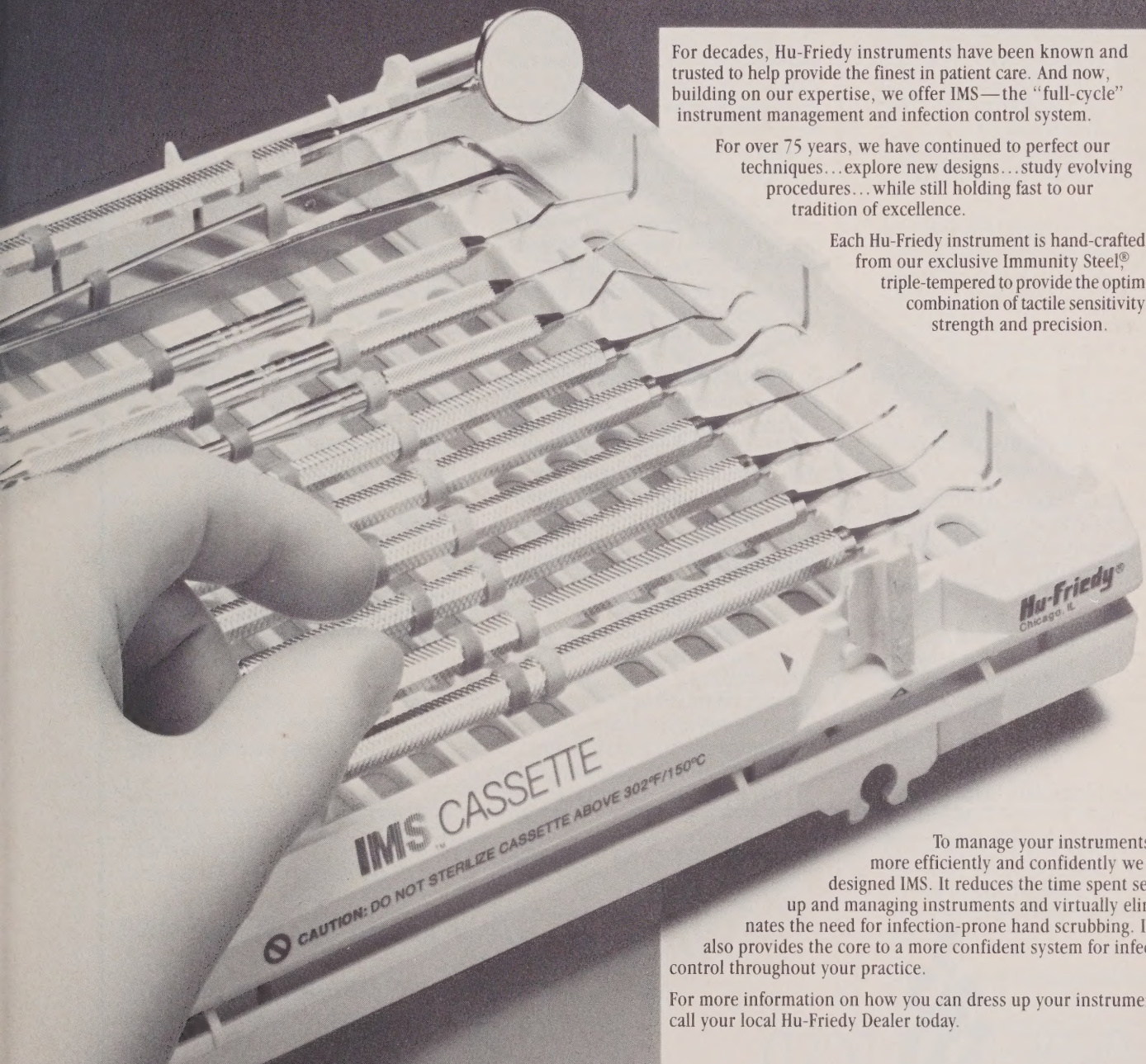
DEADLINE FOR APPLICATIONS:

July 30, 1988

Submit application to:

Ms. Carol Worobey
Executive Director
C.D.H.A.
1320 Carling Avenue
Ottawa, Ont. K1Z 7K9

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Self Employment

Some dental hygienists are interested in adopting self-employment as a method of reporting their income to Revenue Canada. Self-employment implies that working conditions are suitable for the independent contracting of services. There can be tax advantages available through the control of fiscal year and the deductibility of business expenses. One of the major disadvantages lies with the ineligibility of self-employed individuals for unemployment insurance, which could be a problem for a maternity leave.

The conditions required for self-employment are difficult to outline on a general level. Revenue Canada operates on a case by case basis. The appeal process progresses to the Federal Court of Canada. The principle of precedent in law-making takes effect in the rulings. At present, there has not been a case at the Federal Court level involving a dental hygienist.

Revenue Canada uses the following criteria when deciding the question of acceptability of self-employed status for a taxpayer:

1. Control

The degree of direct control and supervision of what is to be done as well as the manner of the work is considered. A self-employed contractor would retain control over such issues as working hours, charges for services, work quality and location of work.

2. Chance of profit or risk of loss:

The degree of financial investment and management in the business is evaluated with attention to the financial investment made in the business. The ownership of tools, provision of equipment, hiring of staff and overall management of the business are all associated with control over profitability. Further to this, is the assumption that the self-employed individual is solely responsible for the provision of their own benefits such as sick leave, vacation pay and liability insurance.

3. Specified results:

This test attempts to determine whether the person in question was hired to complete a specific project with a pre-determined result. An independent contractor fits into this situation whereas an employee is hired to provide ongoing services without the attention to a specified result.

4. Integration (organization):

This has been used by the courts to evaluate the degree to which the work done is an integral part of the business on a day-to-day basis. An employee provides services which are integrated into the business and an independent contractor provides a service which is peripheral or accessory to the business.

It should be noted that the employer assumes a risk if Revenue Canada deems that the self-employment status is inappropriate and that the person must be reported as an employee. The employer is responsible for paying both the employer and employee portions of CPP/UIC owing in addition to a penalty. The employee will be held responsible for any tax owing due to business deductions which are subsequently disallowed.

Due to the financial risks involved to both the dental hygienist and the dentist, it is advisable to take care when reporting self-employment status. It is possible to obtain a ruling from the Department of National Revenue. Contact a lawyer or chartered accountant for professional advice. ■

Dianne Tivy



Help Build the Fund

Send your tax deductible gift to:

105-1815 ALTA VISTA DRIVE
OTTAWA, ONTARIO K1G 3Y6
TELEPHONE: 613-731-0493

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Dear Editor,

I believe the December issue of *PROBE* was the best to date. I especially enjoyed the article on « Health Promotion » by Ellen Brownstone.

Enclosed is a letter from the Canadian Dental Association which has annoyed me. I have not been able to obtain a copy of the First Teeth Program. This tells me that we are not recognized as dental health promoters.

It's time for dental hygienists to promote themselves.

Yours truly,

Connie Maddox-Campbell

Dear Ms. Maddox-Campbell

Thank you for your kind comments regarding the First Teeth program.

The Canadian Dental Association is very enthusiastic about this program and judging by the response to date, so are dental health professionals.

At the present time the First Teeth kit is available only to dental offices. This program was developed for use in the dental office to provide practising dentists with practical information for the parents of their young patients. *That is why the order form we provide requires the signature of a dentist.*

Thank you for your interest in the Canadian Dental Association's dental awareness programs.

Sincerely,

Kimberley Allen-McGill
Information Officer,
Canadian Dental Association

Editor's Reply

Dear Connie:

Yes it is time for C.D.H.A. to promote the profession of dental hygiene. C.D.H.A. has designated October 16th -22nd National Dental Hygiene Week. Watch for information in this and the September issue of *Probe*.

Let's all become involved!

A mailing was recently sent to some hygienists to publicize Continuing Education courses put on by Practical Advanced Continuing Education. Included with the pamphlet was a note which began "Due to the incomplete list that the Canadian Dental Hygienists' Association provided..."

Dear C.D.H.A.,

The matter dealing with the mailing list is an incredible misunderstanding. I fully realize that the CDHA can only issue the names of its members. The insert was intended to make the seminar known to those hygienists who are not CDHA members. In retrospect, I suppose the language of the insert sounded as though I had not received the complete list of hygienists. I apologize for this misunderstanding and for any perceived notions it may have caused. I have always greatly appreciated any list the CDHA has offered.

Michael W. Darnell, R.P.T.

Dear Editor:

In reading the article "The Efficacy of Mouthrinses" in the March 1988 issue, we noticed a slight error regarding our product Listerine Antiseptic. In Canada, Listerine Antiseptic is only 21.9% alcohol not 26.9% as stated in the article. Given that some dental professionals are concerned about alcohol content, we would greatly appreciate you bringing this error to your readers attention.

Thank you in advance for your help in this matter.

J.M. Stevens
Product Manager,
Warner Lambert

DENTAL HYGIENE REFRESHER COURSE

Course Description:

This two-week full-time course is designed to meet the needs of the Dental Hygienist who is considering a return to active practice or who is upgrading skills and knowledge in preparation for the Out-Of-Province licensing examination. The course will provide the opportunity to review current dental knowledge and to refine clinical skills. Course content is comprised of update lectures, electives and patient-dental clinics and includes:

Update lectures

- Dental Instrumentation
- Gracey Curettes
- Patient Assessment & Charting
- Radiology
- Fluoride
- Periodontics
- Orthodontics
- Dental Oncology & Oral Pathology
- Medical Emergencies
- Preventive Dentistry & Cariology
- Job Search Guidelines
- Nutrition

Dates and Location:

July 4-15, 1988
George Brown College
Casa Loma Campus
175 Kendal Avenue,
Toronto, Ontario

Fee: \$379.00

For Further Information, Contact:

Evie Jesin any Thursday A.M. at 967-1212, extension 2229.
Messages may be left for Mrs. Jesin at 967-1212, extension 2500.

Sponsoring Organization:

George Brown College, in cooperation with the Royal College of Dental Surgeons of Ontario

AADS House Adopts Policy Saying Dental Personnel May Not Refuse to Treat Patients Solely Because They Have AIDS

On March 9, the House of Delegates of the American Association of Dental Schools adopted a policy stating:

Dental education has the obligation to maintain standards of health care and professionalism that are consistent with the public's expectations of the health professions. The following principles should be reflected in the education, research, and patient care programs for all dental personnel, including dentists, dental hygienists, dental assistants, dental laboratory technologists, and other faculty, students, and support personnel:

- a. All dental personnel are ethically obligated to provide competent patient care with compassion and respect for human dignity.
- b. No dental personnel may ethically refuse to treat a patient whose condition is within their realm of competence solely because the patient is at risk of contracting, or has, an infectious disease, such as human immunodeficiency virus (HIV) infection, acquired immunodeficiency syndrome (AIDS), hepatitis B infection, or other similar diseases. These patients must not be subjected to discrimination.
- c. All dental personnel are ethically obligated to respect the rights of privacy and confidentiality of patients with infectious diseases.
- d. Dental personnel who pose a risk of transmitting an infectious agent should consult with appropriate health care professionals to determine whether continuing to provide professional services represents any material risk to the patient, and if so, should not

engage in any professional activity that would create a risk of transmission of the disease to others.

World Health Organization Fellowships

OTTAWA – Details of the annual World Health Organization (WHO) competition for fellowships for Canadian citizens wishing to undertake short-term studies abroad were announced today by the Department of National Health and Welfare.

All health personnel in medical, paramedical and health related fields, including veterinarians and veterinary assistants, dentists and dental auxiliaries, engineers in the field of sanitary science, laboratory technologists, nutritionists, rehabilitation specialists as well as teachers and administrators in all of these fields are eligible to apply. Those engaged in pure research, undergraduate and graduate university students are not.

Applicants for WHO fellowships will be rated by a Canadian Selection Committee on the basis of education, experience, proposed area of study, field of activity and the intended use of their newly acquired knowledge.

The final decision regarding the award of a fellowship, as well as the proposed area of study, rests with WHO.

Applications must be received before June 30, 1988. Further information and application forms can be obtained by writing to:

WHO Fellowships
Intergovernmental and
International Affairs Branch
Department of National Health
and Welfare
Jeanne Mance Building
Tunney's Pasture
OTTAWA, Ontario K1A 0K9

Achieving Health for All: A Dental Health Perspective

A new initiative has been undertaken to address the dental health area using the framework of the Achieving Health for All report. The document *Achieving Health for All: A Framework for Health Promotion* was released in November, 1986 by the Honourable Jake Epp, Minister of National Health and Welfare. Joanne Clovis has been selected as C.D.H.A.'s representative on the Steering Committee on Oral Health Promotion.

The Steering Committee will exist for the duration of the process to develop national goals and strategies, approximately a 3-5 year period. The general role of the Committee, as perceived at this time, will be to develop national and regional goals on oral health through a consensus-developing process along with subsequent strategies to achieve these goals. The Steering Committee will maintain an overall review and advisory capacity throughout the 3-5 years.

The 1975 Dental Hygiene Class, University of Alberta will be having a reunion during the C.D.H.A./C.D.A.A./C.D.A. Convention in Edmonton, August 21-24, 1988. The following classmates are "missing" from our address list:

Cindy Chantler
Betty-Ann Gialof
Debbie Genring
Marilyn Christianson
Diane Maluta
Theresa Wagner

If these classmates or anyone knowing their whereabouts could contact Shauna Rimmer at 1725 Highland Dr. N., Kelowna, B.C. V1Y 4K9, (604) 763-7776, it would be greatly appreciated.



from left to right ; E. Brownstone, C. Worobey, A. Wood, J. Thiel, B. Williamson, R. Nowjack-Raymer.

Report of the Liaison Meeting Between The American Dental Hygienists' Association and The Canadian Dental Hygienists' Association

On February 18th and 19th, 1988, the annual liaison meeting of the A.D.H.A. and the C.D.H.A. took place at the national offices of the A.D.H.A. in Chicago, Illinois. The A.D.H.A. was represented by Barb Williamson, President-elect, Ruth Nowjack-Raymer, International Dental Hygienists' Federation representative and John Thiel, Executive Director. C.D.H.A. was represented by Ellen Brownstone, President, Ailsa Wood, I.D.H.F. representative and Carol Worobey, Executive Director.

In addition to wide-ranging discussions, the C.D.H.A. representatives toured the offices and met with the Directors of several divisions; Professional Development, Government Relations, Institute for Oral Health (charitable foundation of A.D.H.A. funding scholarship & research grant programs) and Membership Services.

Discussions included plans for the 11th International Symposium on Dental Hygiene, June 1989, in Ottawa and activities of the International Dental Hygienists' Federation; public

relations of C.D.H.A. and A.D.H.A., specifically National Dental Hygiene Week; current legislative issues of both associations – self-regulation of dental hygiene in Canada, dissolution of the national Hy-pac in favour of state pacs; articulation of dental hygiene education programs in the U.S.A. – the transition to a baccalaureate degree entry level for dental hygiene in the 21st century; the organization of a charitable foundation to support projects for the dental hygiene profession and the public and the solicitation of funds from members, non-members and companies; member recruitment, retention and services, possible A.D.H.A. membership category for foreign hygienists, "support" membership category.

One area of major concern to the A.D.H.A. is recruitment into the profession. The American professional schools are not attracting sufficient students, and there is a concern that some dental hygiene programs may close. Discussion took place on cooperative efforts that could be made to allow American schools to approach candidates who have been rejected by Canadian dental hygiene programs. The Executive will be discussing this matter and making a recommendation to the Board of Directors.

Ailsa Wood

CFDE DONATES \$7,000 TO HYGIENISTS

I am very pleased to announce that the Canadian Fund for Dental Education recently approved \$7,000 in grants which directly benefit dental hygiene.

The Trustees of the Fund realize how important national standards for licensure are, both to the members of a profession and to the general public. We are therefore granting \$5,000 in 1988 to the CDHA for its use in the development of a table of specifications for a National Dental Hygiene Examination. The Trustees saw this as an excellent use of CFDE funds as it affects every dental hygienist in Canada. Continuing support in the years to come will depend on annual progress reports. We wish every success to the core group working on this project.

CFDE also donates \$2,000 annually to the Ontario Dental Hygienists' Association, a grant which is underwritten by Warner-Lambert Canada Inc. Many worthwhile projects are carried out annually with these funds.

The Fund is anxious to lend its support to organized hygiene. We hope you will return the favour by sending your tax deductible donation to: CFDE/FCED

105 – 1815 prom. Alta Vista Drive
Ottawa, Ontario K1G 3Y6

J. Fred Reid, D.D.S.
Chairman, CFDE Board of Trustees

Executive Travel

On March 25th and 26th 1988, Ellen Brownstone President; Henry King First Vice President; and Carol Worobey, Executive Director attended the Interim Meeting of the Canadian Dental Association, Board of Governors in Ottawa. A C.D.H.A./C.D.A. Management Meeting was held at which time items of concern to both, were discussed. Of special interest to dental hygienists, both the Guidelines for Radiation and for Infection Control were passed at this session and appear in this Journal on pages 72-75.

Presidential Visit to the Quebec Dental Hygienists' Association

On Wednesday, March 2nd, 1988, Ellen Brownstone made a C.D.H.A. presentation to the Quebec Dental Hygienists' Association at the Jewish General Hospital in Montreal. The meeting was well attended, including representation from John Abbott Dental Hygiene students.

The presentation focused on C.D.H.A. efforts in the areas of Health Promotion, an educational Competency Profile for Dental Hygiene, Quality and Competence Assurance, National Dental Hygiene Certification and Public Relations. Information was provided on the upcoming '88 C.D.H.A. Convention in Edmonton and the 11th International Symposium on Dental Hygiene.

Appreciation is extended to Christine Wooley, C.D.H.A. Director, for organizing the meeting.

Association of American Dental Schools (A.A.D.S.) Meeting

On March 7, 1988 E. Brownstone addressed the Dental Hygiene Educators Section of the A.A.D.S. in Montreal. In addition to bringing greetings from C.D.H.A. she made a brief presentation on Canadian Dental Hygiene education and extended an invitation to all in attendance to attend the upcoming International Symposium. At this meeting she also met with representatives from Warner and Lambert and Healthco and executive officers of the American Dental Hygienists' Association.

■

Congregate in '88 CDHA National Convention

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Dear Dental Hygienist:

Re: Invitation to attend the 1988 C.D.H.A. National Convention

The C.D.H.A. Annual Convention will be held August 21-24, in Edmonton, Alberta. The C.D.H.A. Convention Committee has planned and organized excellent scientific sessions and social functions.

Registration Fees:

Registration fees include access to C.D.H.A. Scientific sessions and social functions, opening ceremonies, table clinics and C.D.A. Scientific sessions (except Rhodes lecture) and exhibits.

Single day registrations are also available.

Convention '88 will prove to be educational, stimulating and fun.

Don't Delay — REGISTER TODAY and come CONGREGATE IN 88!

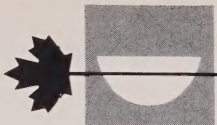
C.D.A. has established a new registration category for the 1988 Convention, "Office Personnel" in order to significantly increase the number of non-dentist participants for C.D.A.

C.D.H.A. urges all dental hygienists to enact their "professional responsibility" and register for Convention '88 through the Canadian Dental Hygienists' Association registration form in the C.D.H.A. Journal: *PROBE*.

See you in August 1988 in Edmonton for the C.D.H.A. National Convention.

Ellen Brownstone
President

C.D.H.A. NATIONAL CONVENTION



AUGUST 21-24, 1988 EDMONTON, ALBERTA

CONGREGATE IN '88!

PROGRAM OF EVENTS

Sunday, August 21

7:00-10:00 p.m.

Opening Ceremonies
Registration

- an opportunity to meet and eat with fellow registrants

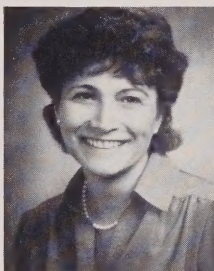
Monday, August 22

8:00-9:00 a.m.

Registration
Continental Breakfast

9:00-12:00

Dr. Irene Woodall
Revitalizing Your Dental Hygiene Career



Dr. Irene Woodall, the well known educator, researcher, consultant, RDH editor, and author of

Comprehensive Dental Hygiene Care and Legal, Ethical, and Management Aspects of the Dental Care System is the keynote speaker for the Convention.

Dr. Woodall's focus for discussion will be *Revitalizing Your Dental Hygiene Career*. Her talk is designed for dental hygienists who expect that dental hygiene will be a viable, attractive profession in the years ahead. Following a discussion on the current status of dental hygiene, Dr. Woodall promises to define some alternatives for developing a solid career orientation - complete with concrete action plans. Dr. Woodall will also be specifying major changes in clinical protocols based on a growing research base in periodontics and caries control.

12:00-1:30 p.m.

President's Luncheon

1:30-4:30 p.m.

Dr. Irene Woodall
Revitalizing Your Dental Hygiene Career
cont.

7:00 p.m. - 10:00 p.m.

Class Reunion

- An opportunity for hygienists of every graduating year to congregate and share the past and the present.

OR

West Edmonton Mall

- Buses will transport any registrants to West Edmonton Mall - the largest shopping and entertainment complex in the World!

Tuesday, August 23

8:00-9:00 a.m.

Registration
Continental Breakfast

9:00-12:00

Doug Krenz
Focus on Excellence

Mr. Krenz is a certified psychologist who has specialized in the study of self esteem for the past eleven years. Mr. Krenz teaches workshops through the University of Alberta's Faculty of Extension and is currently employed by the Edmonton Public School System's Centre for Education.

The workshop, Focus on Excellence, will introduce easy-to-learn principles that will allow the registrant to systematically become more effective in dealing with others.

12:00-2:00 p.m.

Lunch & Fashion Show

2:00-4:00 p.m.

Table Clinics
Exhibits

7:00-10:00 p.m.

Social: CDHA, CDA, CDAA
Entertainment Evening

Wednesday, August 24

9:00-12:00

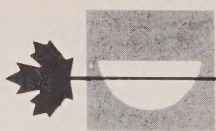
Brunch and Learn with
Dr. Bruce Hatfield
The Ethical Decision Making Process

- Medical doctor, philosopher and author of *Matters of Life and Death*, Dr. Hatfield will discuss very practical approaches to our day-to-day ethical problems.

Sound interesting?
The Program was designed
with YOU in mind.
Sound fun? You bet!

Don't delay - register today!

C.D.H.A. NATIONAL CONVENTION



AUGUST 21-24, 1988 EDMONTON, ALBERTA

CONGREGATE IN '88!

ADVANCED REGISTRATION FORM

NAME: _____ C.D.H.A. MEMBER: ☐ YES ☐ NO

ADDRESS: _____

CITY/PROVINCE: _____ POSTAL CODE: _____

TELEPHONE: RES. () _____ BUS. () _____

Full Convention

	*Before July 15/88	After July 15/88
C.D.H.A. Member	\$130.00	\$150.00
C.D.H.A. Non-Member	\$260.00	\$280.00

Includes access to C.D.H.A. scientific sessions, exhibits, table clinics, opening ceremonies, continental breakfasts Mon. & Tues., President's Luncheon Monday, lunch and fashion show Tuesday, and Brunch and Learn on Wednesday.

Student Members - Scientific program complimentary

Fee for access to all C.D.H.A. social functions Mon.-Wed.
= \$60.00

Single Day Registration (Monday, Tuesday, or Wednesday)

C.D.H.A. Member	\$75.00
C.D.H.A. Non-Member	\$130.00
Student	\$25.00

Includes all C.D.H.A. activities scheduled for the chosen day.

*NOTE: Registration before July 15/88 makes you eligible to win a FREE Convention registration.

Hotel Reservations:

*C.D.H.A. Convention Headquarters, Hospitality Suite, Lectures, etc. are at the Chateau Lacombe, Edmonton - reservations can be made by calling:
1-800-268-9411*

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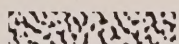
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School of Dental Hygiene Dalhousie University

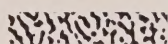
1987-88 has seen some significant events at the School of Dental Hygiene, Dalhousie University.

In October, an 18-month self-study of the School was concluded. This review encompassed basic policies and goals of the School as well as resources and curriculum. Wendy Halowski of Vancouver served as a consultant to the review. The review resulted in some basic program changes:

1. Commencing in 1989, applicants must have completed five full university classes including Psychology, Sociology, Biology, a writing course (i.e. one including a high component of written work) and one elective. Applicants must have standing in Grade XIII Chemistry or equivalent.
2. The two-year diploma program will be revised to become less crowded, better integrate curriculum material, and augment present curriculum content where appropriate.
3. A degree of completion program (the equivalent of one full year following the pre-professional year and 2nd year diploma program) has been approved in principle by the Dalhousie Dental Faculty. A proposal must be approved by Senate, the Board of Governors and the Maritime Provinces Higher Education Commission before it can be implemented.

An accreditation site visit from the CDA Council on Education and Accreditation took place in February 1988.

In March, one faculty member and five students from John Abbott College in Montreal spent a week at Dalhousie. This was the second half of an exchange program which saw Dalhousie students visit the Montreal program in February.

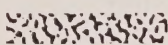


Wascana, Regina Saskatchewan

Wascana Institute amalgamated with several other colleges and institutes in Saskatchewan to become part of S.I.A.S.T. (Saskatchewan Institute of Applied Science and Technology) - Wascana Campus.

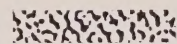
Due to the termination of the government sponsored school based dental program, eighteen additional places were created in the Dental Hygiene Program for displaced dental therapists.

This created a sudden, dramatic increase in enrollment from 12 to 30 students. Thirty students will also be enrolled during the next academic year. Admission is still limited to dental therapists. A successful accreditation review took place in April 1988.



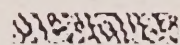
John Abbott College

The academic year was off to a good start, John Abbott received full accreditation for another five years. The third-year students participated in the public hearings for fluoridation of the Montreal water system, while the second year students aired oral health and dental hygiene information on a local radio station for dental health month. Two dental hygiene students from Dalhousie University visited in February and in March five students and one faculty member from John Abbott College went to Halifax. The third-year students and McGill University dental students visited Montreal schools; teams presented dental health material. John Abbott College is organizing the provincial (Quebec) educators workshop for June 1988. Twenty-one dental hygiene students will graduate on June 14, 1988.



University of Manitoba, School of Dental Hygiene

1. Work continues on a proposal for changes to admission requirements to include five pre-professional University courses and several major curriculum changes.
2. A proposal for a post-diploma Baccalaureate program in Dental Hygiene is being developed. An interest survey of Manitoba, Saskatchewan and Northwestern Ontario dental hygienists and dental hygiene students has been conducted.
3. The School of Dental Hygiene and the Department of Pedodontics have developed and implemented in 1987-88 a Dental Auxiliary Utilization (D.A.U.) program whereby, teams of senior dental and dental hygiene students and certified dental assistants comprehensively treat pedodontic patients.
4. Senior dental hygiene students were involved in one-week externs to the Manitoba Development Centre for the physically and mentally handicapped in Portage la Prairie and to Peguis Indian Reserve in Hodgson, Manitoba.
5. Yvonne Knazan, part-time faculty member, received the 1987-1988 C.D.H.A. Research Fellowship Award.

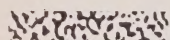


Algonquin College

The 1987/88 academic year at Algonquin College has been interesting and challenging. A new format of integrated clinical experience for both dental hygiene and dental assistant students was tried with success. As with any new effort, refinements in the system are necessary but, all in all, staff and

students felt they derived benefits from the activity.

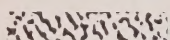
The two-year validation study on identifying a suitable battery of tests for use in selection of dental hygiene applicants was completed early this year. In response to the Ministry of Colleges and Universities' new guidelines on selective admission, the tests identified as having the best predictive validity are being used to rank order dental hygiene applicants for admission to this year's program. With close to 850 candidates competing for 46 training seats it is hoped that those selected under this new system will have the greatest potential for success so that fewer training opportunities are lost through attrition.



Georgian College

Georgian College started its year off with additional dental hygiene students. Student numbers were increased from twelve to fourteen. Students are devoting their time to didactic and clinical portions of the course as well as attending winter clinic, May convention and presenting scientific seminars for the local Simcoe County Dental Hygiene Association. Student attendance was increased at the local dental hygiene meetings, and they participated actively in all the planned events.

Three new part-time faculty were employed at the College to instruct in the clinic. Once again, Georgian has had an exciting school year.



Division of Dental Hygiene University of Alberta

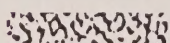
During the past academic year, full-time Dental Hygiene faculty, Joan Conklin, Janice Pimlott, and Barbara Zier, participated in the development of a ten year long range planning document for the

Faculty of Dentistry. There are several initiatives within the proposal, which when approved, are exciting for Dental Hygiene. They include addition of administration of local anesthesia to the curriculum, the implementation of a dental hygiene residency program, and following start-up of the baccalaureate program, initiation of a Masters program in dental hygiene. In the meantime, however, economic restraint continues to delay further action on the proposed dental hygiene degree completion program.

The dental hygiene teaching program at the University of Alberta is supported by a very dedicated, enthusiastic, and competent part-time instructional team: Kim Arsenault, Susan Barry, Joanne Clovis, Sharon Compton, Patricia Dray, Anita Eastwood, Barbara Gitzel, Cynthia MacDonald, Janice Ritchie, Paulette Schulte, Brenda Walker, and Margaret Wilson. I would like to recognize their commitment to dental hygiene education and dental hygiene professionalism.

Many of the Dental Hygiene staff have been very active in planning for CDHA Convention. We look forward to welcoming dental hygienists from across Canada to Congregate in '88 in Edmonton, August 21-24, 1988.

Barbara Zier



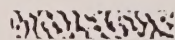
St. Clair College of Applied Arts and Technology Windsor, Ontario

Dental hygiene students from St. Clair College have participated this year in several non-traditional learning experiences. Benefits have included fun for all and a greater appreciation of our innovative students and college resources. Our state of the art T.V. studio became the arena for several taped nutritional counselling sessions.

Stars were born, patients enjoyed the extra attention and students and faculty enjoyed the experience. Oral pathology classes came alive with the use of popular T.V. game shows to elaborate upon and reinforce course content and ideas. Jeopardy, Password and Concentration became avenues for learning about oral conditions ranging from aphthous ulcers to squamous cell carcinomas. We will never forget the incredible and sometimes bizarre Histology, Periodontics and Preventive visual aids created by the students to depict particular concepts and themes. Everyone, as well, learned a lot from the many speakers and special presentations given in our course designed for the care of the special needs patient. The Kids on the Block, a unique puppet show whose characters depict various physically disabled children visited our classrooms and we all developed a further understanding of the needs of these special individuals. Students participated in the YMCA Festival of Fitness program by presenting various clinics designed to educate the public and attract future patients to our clinic.

This busy and productive year has gone by quickly. We welcome our graduates to the dental hygiene profession and encourage them to continue their learning experiences throughout their careers.

Sadie Hearn
Co-ordinator
Dental Hygiene Program



Collège d'enseignement général et professionnel François-Xavier-Garneau Québec

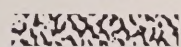
The department of dental hygiene at the Cegep François-Xavier-Garneau college is now composed of twelve full time teachers, ten dental hygienists and two dentists.

All our school facilities are planned to be relocated on one campus in 1989. Already a lot of time and energy are being dispensed planning the move. Computer processing of our clinical files and evaluation are also in the making. An asepsis infection and hazard control clinic protocol was also developed and implemented according to the A.D.A. recommendations.

Members of our staff attended the « 1^{er} Congrès Mondial de Prévention bucco-dentaire » which was held in Paris last summer. Our school was also represented at the American Dental School Association convention this March in Montreal.

All our staff members will be meeting with teachers from all the other dental hygiene programs in the province this coming June, sharing, discussing and evaluating our dental hygiene program at the provincial level.

Sylvie de Grandmont
Coordonnatrice du programme des Techniques d'hygiène dentaire
Collège François-Xavier-Garneau
Québec



Collège d'enseignement général et professionnel François-Xavier-Garneau Québec

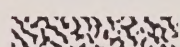
Le département d'hygiène dentaire du Collège François-Xavier-Garneau compte comme effectif 12 professeurs à temps complet cette année. Dix hygiénistes dentaires et deux dentistes dispensent l'enseignement théorique, pratique et clinique du programme.

Cette année, le corps professoral a mis beaucoup d'énergie sur le projet d'agrandissement et de relocalisation de ses installations cliniques et pré-cliniques dans de nouveaux locaux. Le déménagement est prévu pour 1989. De plus, l'informatisation des dossiers et du système cliniques est un dossier en cours présentement.

Aussi, le département a révisé et adopté un nouveau protocole d'asepsie conforme aux recommandations de l'A.D.A.

Le département a envoyé des représentants au « 1^{er} Congrès Mondial de prévention bucco-dentaire » tenu cet été à Paris, ainsi qu'au congrès de l'American Dental School Association qui a eu lieu à Montréal, en mars dernier. Toute l'équipe professorale se prépare à assister au Colloque sur l'évaluation du programme provincial des Techniques d'hygiène dentaire qui se tiendra en juin prochain, au Manoir St-Castin.

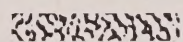
Sylvie de Grandmont
Coordonnatrice du programme des Techniques d'hygiène dentaire
Collège François-Xavier-Garneau
Québec



Vancouver Community College Dental Hygiene Program

This past year has been full of challenges as we were involved in a national accreditation process as well as a clinical review by the College of Dental Surgeons of British Columbia. In order to maintain the link with the dental students at the University of British Columbia working rotations have been established in orthodontics, periodontics and paedodontics. The second year students are also involved in several ethical dilemma and communication seminars with the dental students. We look forward to continued growth in the next academic year.

S. Sunell



College of New Caledonia

"The Dental Hygiene program at the College of New Caledonia is finally underway. The 1987-88 academic year has been a historical year for the

Department of Dental Programs. The first dental hygiene class of 20 students was enrolled in September. They shared cramped quarters with the dental assisting program as the clinical program began.

With the new year came the big move to the new Dental Building with its 20 operatory clinic, four radiographic rooms (one of which is a specialty care room), classrooms, laboratory areas, offices, locker rooms and other support areas. Students and faculty from both the hygiene and assisting programs are enjoying the spacious new learning environment.

On January 9, 1988, the Honorable Stan Hagen, Minister of Advanced Education and Job Training, performed the official opening. Tours of our grand facility were conducted by the dental programs faculty and a banquet followed later that evening. The evening was a great success. A special treat for us came the next day when Doctors Irene Woodall and Dennis Thompson spoke on periodontics. Those autographed texts will certainly be a nice reminder of a very special event. What an inspirational lady!!!

In February, students began to see their first clients in the clinic. And, though some thought they might not, EVERYONE survived the "ordeal".

Dental Health Month activities included placing posters around campus, student designed DHM theme bookmarks were distributed to the library, and a toothbrush trade-in was held. And, before we know it, it's June and time for a well-deserved summer break.

Next year will again bring excitement and challenges as a second class enters, the accreditation site visit occurs and graduation of the "first" class. Stay tuned to this *Journal* to read the report of survival in the second year!"

Patricia Noble



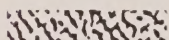
Seneca College Dental Hygiene Program

During the past year, two important curricular changes have occurred at Seneca College; firstly the introduction of an infection control program in the clinic with augmentation in the appropriate theoretical courses and, secondly, the re-organization of several theoretical courses with the development of a core course, "The Fundamentals of Dental Hygiene Care."

The infection control program was developed by the efforts of Betty Ellecker and Eleanor McIntyre with continuous support and participation of the faculty. This developmental process has increased both the faculty's and student's awareness of the potential hazards in the dental environment and the legal, social and ethical ramifications of the provision of dental hygiene care to persons with infectious diseases. At the present time, the infection control program has been implemented in the clinics while the theoretical courses are being co-ordinated for the fall of 1988.

With the support of the Academic Review, Renewal and Research Division of Seneca College, curriculum review was undertaken and resulted in the development of a core course "Fundamentals of Dental Hygiene Care." This project was undertaken by Linda Murray, Shirley Silverman and Eleanor McIntyre. It is the intent of this course to shift the educational focus somewhat from the training of a series of clinical tasks to dental hygiene care as a process. Dental Hygiene process involves four prime behaviours; those of assessment, planning, implementation and evaluation which results in client-centred care. As well, this course addresses the behavioural and cultural aspects of dental hygiene care. In order to facilitate the implementation of this course, other theoretical courses have been revised and reorganized.

Both of these curricular changes have been planned and implemented so as not to alter the hours or length of the present curriculum. They have been designed to enhance the students' provision of client-centred care and to facilitate the students' synthesis of theoretical course material and its application in the clinical setting.



Cambrian College

Cambrian College faculty and students were pleased to have been involved in the pilot project on Alternate Examination Procedures for Dental Hygienists conducted by the Royal College of Dental Surgeons of Ontario. We look forward to receiving positive feedback, that may be utilized in the continued development of our program. Our participation in this project, hopefully, will be of assistance to the R.C.D.S. in establishing revised licensing procedures for Community College graduates in Ontario.

Cambrian has again served as a testing site for the National Board Dental Hygiene examination. In the past two years dental hygiene faculty and a number of students have taken advantage of this opportunity.

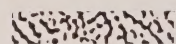
Professional Development activities: Christine Dow, teaching master, participated in a one week course presented by the University of Toronto entitled "Achieving Dental Health in Ontario Collective Living Centers".

The valuable information gathered for this course along with her certificate in Gerontology, from Cambrian College, has allowed Christine to enhance the area of special care patients in both dental assisting and dental hygiene programs.

Claudette Tyndall returned following a one year leave of absence, during which time she participated in a volunteer program at St. Jude's Hospital, St. Lucia, British West Indies, providing dental care in an out-patient clinic. The St. Lucian staff, in all departments, is assisted

by volunteers from other countries, mainly the United States and Canada.

The dental assisting students once again enjoyed the one week work experience provided through the University of Toronto, Dental Faculty.



Collège de Maisonneuve Quebec

The department of dental hygiene at the Collège De Maisonneuve has recently been through the process of renewing our accreditation status.

We have also begun the process of evaluation according to previously identified parameters following the implementation of the new version of the program. The dental equipment at the dental hygiene clinic at the Ste-Justine Hospital continues to be updated.





Experiences in Clinical Periodontal Practice

Sandra Jugovich, Dip. D.H.

Ms Jugovich has been actively involved in a periodontal practice in Mississauga, Ontario for the past eleven years.

The dental hygienist in a periodontal office has functions and clinical experiences that differ from those of hygienists working in other dental specialties.

As a hygienist in a periodontal practice, my concern is for the periodontal tissues and surrounding structures. Accordingly, I have a great opportunity to develop clinical ability in scaling, root planing and curettage. This aspect of patient care represents a large portion of the hygienist's clinical experience, and is of primary importance to the patient.

Treatment, and the frequency of clinical visits, are determined according to the patient's needs. In my clinical experience, I find a great many patients require an anesthetic for thorough sub-gingival treatment. Along with oral prophylaxis, the hygienist has a further responsibility, to provide the patient with dental health education and oral hygiene instruction.

To maintain sound periodontal health, the patient must understand what periodontal disease is – its cause, treatment, and the importance

of maintenance therapy. The outcome rests not only with the hygienist's ability to teach correct oral hygiene procedures, but also to motivate the patient to faithfully pursue their practice. This is achieved by demonstration, patient participation, and continual reinforcement during subsequent appointments.

Great satisfaction can be found in taking a patient through all stages of periodontic treatment. Depending on the periodontist's diagnosis, surgery may be necessary. This could entail gingival grafts, osseous surgery, or implants. For some patients with chronic periodontal disease, all problems may not be eliminated, but only minimized. In these cases, treatment may involve open curettage and a maintenance programme.

When surgery is indicated, the hygienist is involved in post-operative clinical appointments. At these, removal and sometimes replacement of dressing, cleansing of the surgical sites and suture removal are performed. Once again, specific oral hygiene is reviewed. At this stage of treatment, a patient may experience some sensitivity which in time diminishes. A follow-up appointment is usually scheduled for one month after surgery. This either concludes the patient's active treatment, and relationship with the periodontal office, or leads to a maintenance programme. Such a decision depends upon the treatment received, the healing process, and the extent and nature of the initial periodontal problem.

If no further periodontal treatment is necessary, the patient returns to the general dentist for the routine dental care. If it is, then a dual dentist relationship would be recommended. The frequency of maintenance visits again depend upon treatment performed, healing process, and level of home care. This is established by

the periodontist, hygienist and dentist, according to the patient's needs.

The objective of the maintenance phase, whether post-surgery or as a means of controlling an existing periodontal condition, is to stabilize and prevent reoccurrence of the disease. For this reason, it is probably the most important aspect of treatment. At these on-going monitoring sessions, the following clinical procedures are undertaken by the hygienist and periodontist:

- Medical history is updated.
- Soft tissue and surrounding tissue examined.
- Probing.
- Status of patient's mouth is recorded and compared with previous findings.
- Oral prophylaxis. Stain, calculus and roughness removed supra and subgingivally.
- Oral hygiene evaluated, reviewed, and reinforced where necessary.
- General dentist treatment updated.
- Interval for next continuing care appointment recommended.
- X-rays taken where necessary with a full set being updated every few years.

The periodontist and dental hygienist have an opportunity, through continuous close supervision, to reinforce and provide measures for maintaining optimum oral health. Prevention, maintenance, and appointment control are the basis for providing dental health care to achieve long lasting results.

The above represents a brief overview of my clinical experiences and function as a hygienist in a periodontal practice. These are expanding today, with the awareness of and demand for dental implants. ■



Experiences of Practicing in the North

Debbie Lang, Dip. D.H.

“Working as a dental hygienist in the Yukon has been an interesting part of my career. I've lived in Whitehorse (pop. 18,000) since August, 1981, and in the last seven years there has been a variety of work for me in my capacity as a hygienist. Primary industries in the Yukon are mining and tourism, with government being the third largest employer. All three have a major impact on the economy.

In the first 3 years of living in Whitehorse I was working full-time between 2 clinics. This arrangement also gave me the opportunity to do road trips to 2 small communities. One was Tungsten, N.W.T. – a small mining community. This involved about a 3 hour flight via small aircraft from Whitehorse to Tungsten. A dental team of 3 to 4 would stay 7 to 10 days. I had the chance to do this about 3 times per year. Fringe benefits of a road trip of that nature usually involved relaxing in natural hot springs, touring the underground mine, and watching the grizzlies rummage around the dump. The mine, along with the community, closed down in 1985 due to declining reserves and falling prices of tungsten. The second road trip was to Watson Lake; a small town in the

southeast corner of Yukon, along the Alaska highway. Both trips involved long hours and hard work, yet it was a welcome break to the regular routine.

From 1985 to 1986 my husband and I had the opportunity to live in London, England for 14 months. This was quite a break from living in a fairly relaxed northern city to a city with the hustle and bustle of 11 million people. We loved every minute of it!

After my husband's sabbatical was over, we returned to Whitehorse and since then I've been employed part-time as a clinical hygienist. Private practice is not so different in Whitehorse with the exception of the number of children attending the clinics. The dental therapists are set up in the elementary schools and take care of that aspect (other than referrals). The services of a periodontist, orthodontist, and 2 oral surgeons are available. They visit Whitehorse on a regular basis.

Living in Whitehorse does have advantages and disadvantages. To enjoy the outdoors is a definite prerequisite. We've always been outdoor enthusiasts and have tried to maximize Yukon's wilderness opportunities. We've backpacked in numerous areas of the Yukon, enjoyed winter camping and have been on 2 major white-water rafting trips – one taking us to the Arctic Ocean, and the other to the Gulf of Alaska. We also spend time fishing for King salmon and halibut in Alaska, which is just a hop away

from Whitehorse. Much of the winter is spent on the ski trails or back-country skiing.

After mentioning all this I am trying hard to think of some disadvantages. Foremost is not to be able to drive to a larger city (eg. Vancouver is 2300 klms. away) and spend some of that hard earned money on a good shopping spree and a nice dinner. Vancouver or Edmonton are about a 2 to 3 hour jet ride from Whitehorse and presently only serviced by one airline. Lack of competition makes the airfares expensive and the drive out is approximately 2½ hours. Secondly, family gatherings happen rarely, unless you already have family here. However, living in Yukon helps entice friends and family to come and visit. On a more work related note, the expense of attending continuing education courses and conventions is a big disadvantage. That is not easily done on a regular basis due to cost and time involved in getting yourself to the location. I am looking forward to the developments of the directives of the continuing education committee in regards to courses in the C.D.H.A. Journal.

Looking back over the years we've lived in the Whitehorse, it has been a unique experience and I anticipate that it will continue. ■

Compiled by
Michael Clark, B.A., B.Ed., B.F.A.,
Library, Dental Division, SIAST
and
Frances R. Cotton, R.D.H., B.Sc.D.,
M.Ed.,
Program Head, Dental Hygiene,
Dental Division, SIAST.

SO, YOU'D LIKE TO PUBLISH AN ARTICLE..

1. **Decide** on a topic of interest.

2. **Conduct** a "literature search" by looking for material on the topic in the *Index to Dental Literature* and the card catalog of a medical/dental research library. Other available indexes related to health concerns (such as the *Cumulative Index to Nursing and Allied Health Literature*) might also be consulted. Jot down all the information needed to find the material in which you are interested. This information (i.e., author, title, journal name, date of publication, pagination, etc.) is needed for your list of references once the paper is written. Depending on the scope of your research, and in order to facilitate an effective means of handling this information once it is retrieved, an index card might be used for each entry. Thoughts and comments can be made on the cards—a fact that you will appreciate when you are finally writing the document.

3. **Track** down the information you have recorded. Are the articles or books you have located through the indexes in the library? Will you need to get any material on interlibrary loan? Most importantly, do you have enough information to get started?

The focus to this point should be centred on how much material is available. Perhaps you will find so much information that it will be necessary to narrow your topic. Or, perhaps you will not find enough information and you will have to broaden the scope of your topic. By tracking down the references you have found in the indexes and the card catalog, at least some of these concerns should be alleviated.

Remember that material which disagrees with your opinion is as important as that which concurs with your interpretation.

Your point can be strengthened by an argument which stresses discrepancies in the literature—as long as your argument is supported by convincing and verified research.

Your topic of interest may require a "computer search". Ask in the library what such a search would entail and whether it would be advised for your topic. There may be a slight charge for the search.

4. **Make** notes on the contents of the materials that you locate (making sure that you do not lose any of the bibliographical information), stressing the author's main idea or "position". Record your response to the author's point of view—do you agree or disagree? Why? Is the material well-written? Does the author "stick to the point"? These are some of the questions that should be considered in an evaluation of the literature. The index cards will be useful for making these notes and comments.

5. **Consider** what you have learned about the topic. Summarize your own feelings and relate them to any influence the literature has had on your opinion.

6. **Arrange** your thoughts in a logical and sequential manner.

7. **Focus** on a particular interpretation of your subject matter. Consider the audience you want to hear your thoughts. If you are addressing people whose backgrounds would assume a certain knowledge-level of your topic—address them with that assumption in mind. If you are addressing an audience which is unfamiliar with your topic, gear your commentary accordingly.

Try to make your comments clear and concise enough that your readers, regardless of their backgrounds, are able to understand your point of view and that they are able to learn something.

8. **Think** about the arrangement of the material you are going to present and draw an introductory statement from that material. This statement should highlight the "problem" or topic you are writing about and should do so in a brief fashion. Your opinion should be an integral part of this statement.

9. **Compose** the body of the paper using your own ideas and the reference material you have found useful. Restrict yourself to the parameters you have set down in the introduction. Use direct quotes sparingly, but acknowledge *any* material that you utilize.

Grammar is important. Present your argument so that your descriptions and comments flow. Make sure that your use of verb tense is consistent throughout your discussions. Consult a handbook of English usage for any grammar concerns you might have.

10. **Write** a summary which will "answer" the problem you raised in the introduction. The summary should balance the introduction.

11. **Write** your references using the CDHA format. The information that you need should be available from your original notes.

12. **Compose** an abstract. Remember to highlight the content of your paper without giving your opinion of that content.

13. **Choose** a title.

14. **Submit** the article to the publication of your choice. ■

THE ETHICAL AND LEGAL CONSIDERATIONS OF TREATING PATIENTS WITH INFECTIOUS DISEASES CANADIAN DENTAL ASSOCIATION

The Canadian Dental Association believes that individuals with infectious diseases should have access to dental treatment, and that treatment should provide for the well-being of these patients as well as for the protection of the health of the public and of the dental care providers. The dental profession in Canada has a long tradition of providing appropriate and compassionate care to the public, including special groups with special needs. It is the intention of the Canadian Dental Association to maintain related guidelines based on current scientific knowledge and accepted legal, moral and ethical imperatives. Policy will be reviewed on a regular basis and may be modified as new information and developments become available.

A number of facts must be considered:

1. Serious and potentially life-threatening infections such as those caused by Human Immunodeficiency Virus (HIV) and Hepatitis B virus (HBV) exist throughout Canada, affecting several hundred thousand persons, and are transmissible.
2. Most of those who have been infected with the HIV and/or the HBV are unaware of their infected state and are, therefore, capable of transmitting the infection unknowingly to others. Patients so infected cannot always be readily identified in the dental office by means of a medical history and examination.

3. Adherence to current infection control procedures (as outlined in CDA Guidelines on Infection Control) can virtually eliminate the risk of transmission of HIV or HBV within the dental office setting. Where such infection control procedures are used, there is no discernible risk of transmission of HIV or HBV from patient to dental health personnel, from dentist or other dental health personnel to patients, or from dental patients to other dental patients.

4. The dentist has a professional obligation to maintain the standards of practice of the profession and, accordingly, must ensure that infection control procedures are carried out in his or her practice. Dental personnel recognize an obligation to maintain currency of knowledge of infection control procedures and to apply these procedures in the practice setting. Dental personnel should also accept a responsibility to contribute to public understanding of effective approaches to infection control.

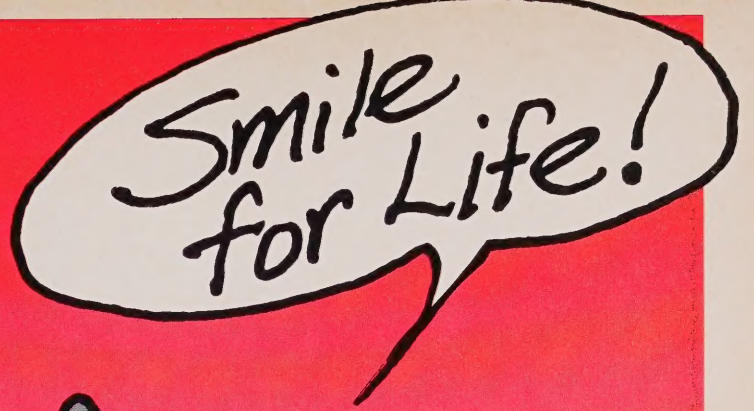
5. Dentists are the only persons who can provide a comprehensive oral diagnosis, plan overall treatment and management of patients with dental diseases or injuries and provide necessary dental services. As professionals qualified by their educational preparation and licence to practice, dentists recognize a moral and ethical requirement to render necessary dental treatment to all members of the public. Accordingly, a dentist

must not refuse to treat a patient on the grounds of the patient's HIV or HBV infection status.

6. A dentist infected by HIV and/or HBV who practises current infection control methods does not pose a risk of infecting patients. However, concern has been expressed as to the competence of practitioners to practise once the diseases have progressed. It is recommended that early consultation be pursued between the CDA and provincial dental associations on this issue and that consideration also be given to the issue of dental auxiliaries so infected.

Dental treatment can and should be rendered in the dental office to most patients with infectious diseases since their safe treatment simply requires following established communicable disease protocols and taking routine precautions to protect the dentist, the staff, and other patients who attend the office. It is recommended that institutional-based facilities be utilized to deal with those patients in advance stages of infectious diseases who have other medical complications which make delivery of dental care in a specialized facility necessary for proper management of the patient's general well-being. CDA encourages further development of specialized institutional facilities dedicated to this purpose. ■

*Approved by the
Board of Governors
Canadian Dental Association
March 1988*



DENTAL HYGIENE

NATIONAL DENTAL
HYGIENE CAMPAIGN



The Canadian Dental
Hygienists Association
L'association Canadienne
des Hygienistes Dentaires

June 1988

Dear Dental Hygienist,

National Dental Hygiene Week, October 16 - 23, 1988, will give us the opportunity to focus the public's attention on the services we provide. It will offer us an occasion to promote our profession to our patients, our friends, our colleagues and the public. It is a time for us to express pride in our profession.

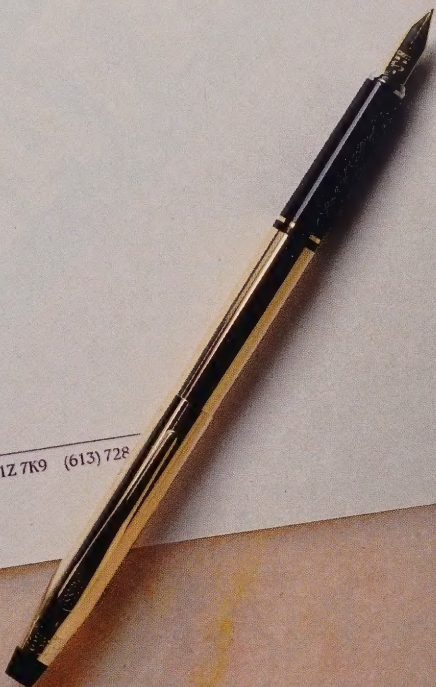
This special insert in PROBE will give you an overview of all our exciting plans. We are very grateful to Frank W. Horner Inc. for sponsoring many aspects of our campaign, including a Resource Manual, this insert, a Smile ... for Life consumer leaflet and our media relations.

All dental hygienists across Canada are encouraged to read this insert and decide how they can participate in our 1988 public awareness campaign. With your help, it will be a success.

Sincerely,

Ellen Brownstone

Ellen Brownstone,
President



LET US SHINE

25 ANNIVERSARY CANADIAN DENTAL HYGIENISTS ASSOCIATION

This year, the Canadian Dental Hygienists Association will be celebrating its 25th Anniversary in a very special way. We are having our first National Dental Hygiene Campaign, October 16-23, 1988.

The objective of our campaign is:
To increase the profile of the dental hygienist as an educator in oral health.

Our slogan is

Smile...for Life.

We have chosen a cat as our mascot for this campaign because it is an ageless character that can be adapted to all ages to present a positive image.

This campaign will benefit

- The general public by providing information on how to improve oral health habits,
- Dental hygienists with increased profile in their community, and
- The Canadian Dental Hygienists' Association with national exposure.

This is our opportunity to show that HYGIENISTS HELP PEOPLE. We know that hygienists are key educators in oral health...but few consumers understand the depth of our knowledge. This will be our chance to shine in a very visible way.

Planning Has Already Begun.

Fortunately, we haven't had to start from scratch. The American Dental Hygienists' Association has had a National Dental Hygiene Week for several years, and they have kindly shared much of their experience with us. Our campaign will coincide with their week in 1988, so we should benefit from across-the-border media overflow.

With the sponsorship of Frank W. Horner Inc. (Viadent toothpaste, oral rinse/Jordan toothbrushes, dental floss) we have prepared a resource kit and planning guide which was sent in early May to 350 members of our association. We've asked these people to become community campaign leaders - and coordinate the efforts of all members locally. In this supplement we've highlighted some of the suggestions from the resource manual.

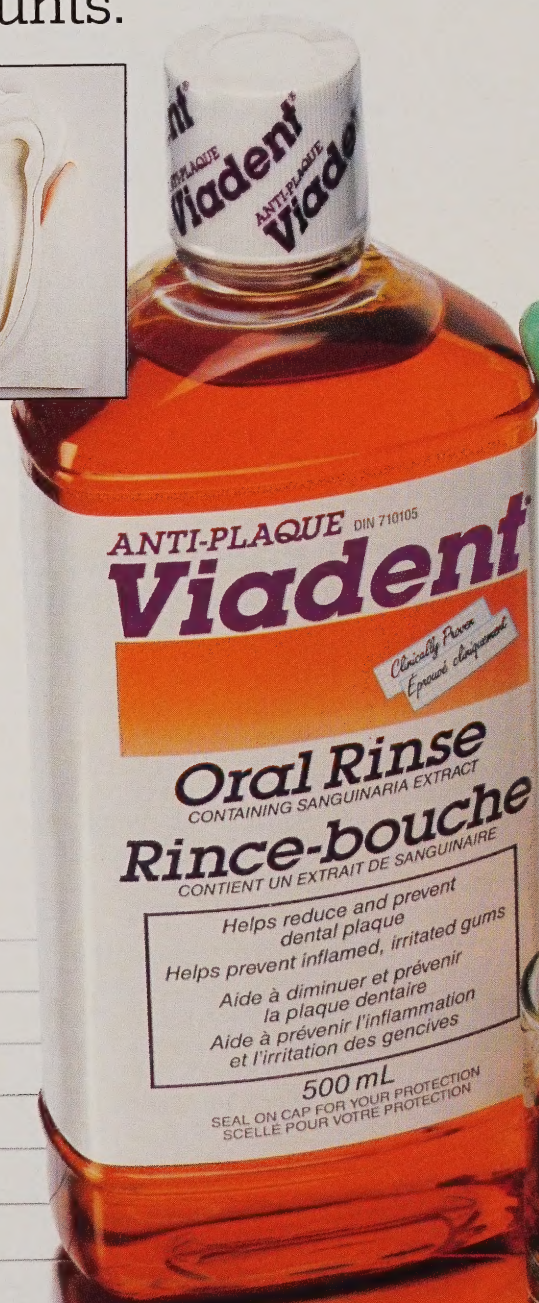
By now you should have been contacted by your local community campaign leader and invited to participate in the planning. If you've heard nothing, call either your society president or the provincial campaign coordinator listed at the end of this insert. These people will be able to provide you with further details and help in your planning.

October will be here before we realize it. Now is the time to work on local plans. Draw on the skills of various members. Who enjoys public speaking? Has someone had some media experience? Who enjoys working with seniors?

NEW

ANTI-PLAQUE **Viadent**[®]

Control and protection
where it counts.



Sanguinarine: A unique anti-plaque ingredient.

Sanguinarine helps to inhibit the growth of plaque microorganisms shown to be related to periodontal disease and caries, while not affecting the bacteria normally associated with healthy tissues.¹

1.Dzink, J.L., and Socransky, S.S. Comparative in vitro activity of sanguinarine against oral microbial isolates. Antimicrobial agents and chemotherapy. 27:663-665, 1985.

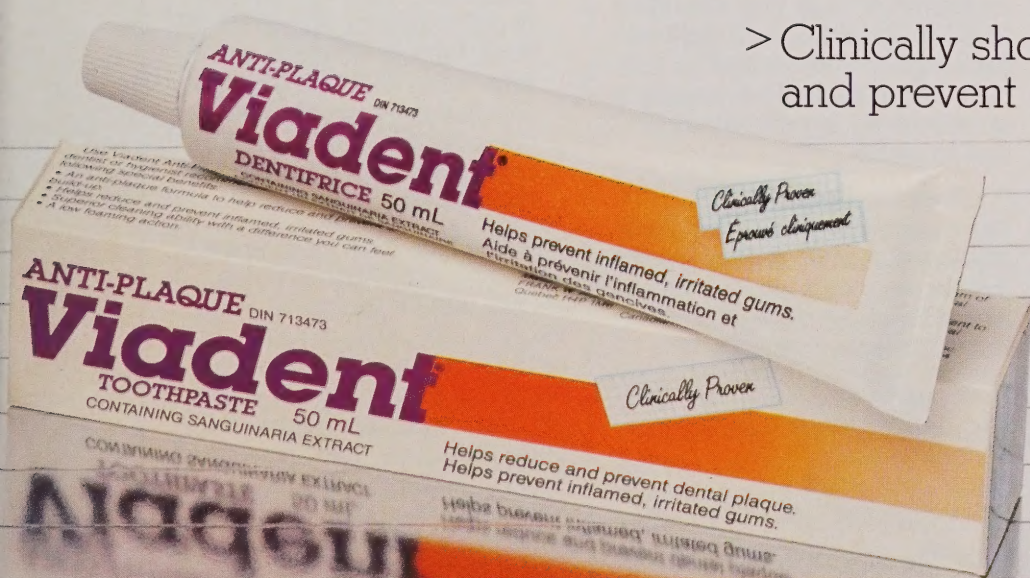
Extensive research demonstrates efficacy against plaque and gingivitis.

Sanguinarine has been tested against plaque and gingivitis in well controlled studies* conducted at major universities and research centres around the world.

In over 25 published articles and abstracts, Viadent was shown to be most effective in plaque control and prevention of gingivitis.

*Available upon request

- > Clinically shown antimicrobial activity that lasts up to 2 hours.
- > Clinically shown to inhibit plaque formation.
- > Clinically shown to reduce and prevent gingivitis.



**Recommend Anti-plaque Viadent.
Your patients will feel the difference.**



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Dental Products Division.
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PAAB
CCPP

New Consumer Leaflet Being Produced

We will be producing a new Smile for Life consumer leaflet, for handing out at community events and to your patients. The copy for this leaflet is being written by Laura MacDonald of Winnipeg. One member of your local Campaign Organizing Committee has agreed to distribute these pamphlets to area hygienists. Contact your community campaign leader to find out who will have these pamphlets. If that isn't convenient, you can order pamphlets from the CDHA office.

There are consumer materials you can also use. Your provincial dental hygiene association has a limited supply of the kits called DENTAL GUIDE FOR OLDER ADULT. If you're going to be speaking to a seniors' group, be sure you have one. High school students and guidance counsellors can be given copies of our CDHA Facts About Dental Hygienists or the leaflet Careers in Dental Hygiene. You can order quantities of these from the CDHA office.

Suggested Community Activities

The following are a few suggestions for activities you can organize in your community...but don't stop here. Let your imagination run wild! Have fun! This is your opportunity to get out from behind the dental chair and show that hygienists have something to say; they are creative, and they have something to smile about.

Activities can be held anywhere... your workplace or a public hall. However, you'll find it easiest if you go where there is an audience already. That way you'll save considerably on advertising costs. Offer your services as part of a regular library series, Y-group, church group or Jaycees meeting and you'll have a ready-made audience.

Be visual. Bring teeth models, dental instruments, a Plak-Lite, brushes, slides—whatever is appropriate for your talk.

☐ Smile Contests

A smile contest is the ideal way to bring attention to our theme, Smile...for Life. Smile contests for politicians and local celebrities make a great media event; they can be a shopper stopper in malls, or add fun to a school visit or your office visits.

We are planning a national Smile Contest to choose the Canadian public figures with the Sincerest Smile, the Sexiest Smile and the Slyest Smile. We invite you to submit to the CDHA office photos from newspapers and magazines of your nominees for these awards. The only criteria are

- the person must be a Canadian and a public figure, and
- the press must have caught the person smiling—with teeth showing.

The winners will be announced as part of the press package in October.

☐ Mall Or Pharmacy Displays

Choose high traffic times. Thursday and Friday nights and all day Saturday are a good time to meet with shoppers in your local mall or pharmacy. Noon hours are busy in a downtown location. But you don't need to limit yourself to just malls. What about a community centre, the Y...anywhere people tend to gather.

☐ Limerick Contest

*There was a young man and a wife
Who know that cavities cause strife
But brushing each day
Would help pave the way
To a radiant Smile for Life.*

*There once was a lad named Pete
Who couldn't refuse a sweet.
With nary a care
But his next eclair
He's a hygienist's patient to treat.*

Enlist the support of the morning DJ on your local radio station to

publicize a limerick contest and invite listeners to phone in with their original limericks about dental health. A limerick contest can also work with your patients, in schools, in senior citizen homes... anywhere there are people who enjoy a smile.

☐ Art Contests

Poster or mobile contests are excellent ways to work with school teachers, students, Sunday School classes, scout and brownie groups. The results also provide good material for your mall or office displays.

Challenge primary students to prepare a poster collage of smiles from magazine ads; give art students dental floss for weaving into designs; ask older students to make mobiles of dental-smart snacks.

☐ Be Noticed

The Canadian Dental Hygiene Campaign is designed to bring attention to your profession, and what better place to start than with your boss and colleagues.

1. Invite your boss to lunch,
2. Send him or her flowers or a balloon bouquet,
3. Bring a fruit basket to the office for all to enjoy,
4. Plan a pot luck supper or wine and cheese party for dentists, dental assistants, dental therapists, nurses, dietitians and other allied health professionals. Together you can plan some co-operative activities to promote healthy living in your community.

This is a time to let them know what your profession is doing... for you and for the public. Bring PROBE to the office to share, and send photocopies of appropriate articles to your friends or your patients. Reproduce copies of the CDHA fact sheet (in the September issue of PROBE) to distribute in your office or at mall displays. Offer to participate in a local career night.

□ Enlist the support of local businesses

Visit local businesses with changeable signs and billboards and ask them to use a dental health slogan October 16th to 23rd. For example: *Ottawa Dental Hygienists say Brush and Floss for Miles of Smiles*

*A Smile is Ageless
Start with a Good Foundation*

*Give Your Smile a Sparkle
See Your Dental Hygienist*

□ Dial-a-Dental Fact

A consumer hot line for one month is a great service to publicize as part of your local campaign. If a group of 10 or 20 hygienists are willing to answer consumer questions, it will mean only one day of work for each one. Maybe your office answering service would be willing to donate a line for a month.

□ Do Some Research

Do a mini-survey in your area, or amongst your patients. Find out:

1. How frequently or infrequently people replace their tooth brushes?
2. Do they floss regularly?
3. Do they use a mouthwash?
4. Do they use fluoride or anti-plaque products?
5. When did they last visit a dentist?

Use the results of your study as a spring board for press releases or media interviews.

Media Relations

The best way to carry the Smile... for Life message to a large audience is through the media. CDHA, with the sponsorship of FRANK W. HORNER INC., will be sending a press kit to all major daily newspapers and national magazines. We also will be producing television video tapes and radio audio tapes from interviews with Ellen Brownstone. These tapes will be sent, ready to air, to key broadcast outlets coast-to-coast. As well, we will be arranging press interviews

for Ellen in Toronto and Ottawa. We urge you to watch our President "on air".

But in addition local media outlets need local stories. They want to know what dental hygienists in their area are doing and saying. So don't be shy. Tell the newspapers, radio and TV about local Dental Hygiene Campaign activities; invite them to participate in your Smile Contests and other public activities; suggest a visit to your clinic; offer a painless free cleaning or five-minute check up to the media; agree to go "on air"; offer to write an article yourself. Your local campaign coordinator can provide tip sheets for you from the Resource Manual.

□ Publicize Your Event Widely

Newspaper community event columns, cable TV channels, library, school, workplace and hospital bulletin boards are all excellent ways to publicize your event. It's inexpensive to prepare an attractive notice, have it duplicated on 8½ x 11" coloured paper and distribute it to as many locations as possible. Most media outlets prefer to receive notices six weeks in advance of your event.

Some restaurants and fast food chains will publicize community events on their tray covers. If you approach them early enough they may be able to work with you in a cross promotion, such as free floss for the first 50 customers.

Coordination

Since this is our first National Dental Hygiene Campaign we must be sure that our efforts have the greatest impact possible. Therefore it's important that we share our ideas during the planning stages to avoid unnecessary duplication. The following CDHA members have agreed to act as provincial coordinators, and they will be submitting regular progress reports to Audrey Newcombe, our public

relations officer. Be sure your Provincial Campaign Coordinator knows what you are planning. If you have any resources, activity ideas or suggestions you'd be willing to share, please write or call.

□ Provincial Campaign Coordinators

Ontario: *Elizabeth Jones*,
4 Highbush Court, Brampton, Ont., L6S2M3
H (416) 846-8439 B (416) 451-8388

Manitoba: *Dianne Landry*,
6 Astbury Bay, Portage la Prairie, Man.,
R1N 3K6
H (204) 857-3142 B (204) 857-6996

Newfoundland: *Henry King*,
23 Allandale Rd., St. John's, Nfld., A1B2Z3
H (709) 744-2330 B (709) 726-1662

Prince Edward Island: *Audrey Newcombe*,
R.R. #1, Tyne Valley, PEI, C0B 2C0
H (902) 831-2964

Nova Scotia: *Glenda Butt*,
6324 Duncan St., Halifax, N.S., B3L 1K3
H (902) 423-0847 B (902) 424-2279

New Brunswick: *Sharyn Milroy*,
85 Oakmoor Terrace, Moncton, N.B. E1G 1T4
H (506) 384-1961 B (506) 387-2000

Saskatchewan: *Dianne Gallagher*,
6522 Whellan Dr., Regina, Sk., R4X 3H8
H (306) 924-2462 B (306) 787-4343

Alberta: *Joanne Clovis*,
#1-14310-80th St., Edmonton, Ab., T5C 1L6
H (403) 476-6596 B (403) 427-2646

British Columbia: *Jo Gardner*,
P.O. Box 151, Madeira Park, B.C.,
H (604) 883-9209 B (604) 228-3501

Watch for more materials—including a poster and stickers—scheduled to be sent to each member with the September issue of PROBE.

Let's work together to ensure every Canadian knows that
HYGIENISTS HELP PEOPLE.

Now From Horner

Jordan Dental Floss
Jordan Toothbrushes
Viadent Oral Rinse
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The Plaque Fighters

Frank W. Horner is now the only company in Canada to offer such a complete range of 'plaque fighting' oral hygiene products. We are proud of this achievement and are committed to continuing our tradition of supporting the dental community with quality products and service.

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The official sponsor of the CDHA National Dental Hygiene Week.

RECOMMENDATIONS FOR INFECTION CONTROL PROCEDURES

CANADIAN
DENTAL
ASSOCIATION

Dentists have always been concerned about disease transmission. Traditionally, this has been accomplished by the sterilization of surgical instruments. The appreciation that dentists are at risk for acquiring Hepatitis B has resulted in the realization that disease may not only be transmitted from patient to patient, but also from patient to dentist and dentist to patient. This has created the philosophy that all blood, saliva and other body fluids must be considered as potentially infectious. Such an understanding has necessitated a revision of previous infection control procedures.

The implementation of such changes will occur if the dental profession is aware of how practical infection control may be achieved. As the initial phase of this educational program the following infection control procedures have been developed.

Since medical history and examination cannot reliably identify all patients infected with HIV, HBV or other blood-borne pathogens, precautions should be consistently used for *all* patients.

- gloves should be worn in treating all patients when contact with blood, saliva and body fluid is anticipated;
- hands should be washed with a germicidal soap prior to and immediately after the use of gloves;
- masks should be worn to protect oral and nasal mucosa from splatter of blood and saliva;
- eyes should be protected with some type of covering to protect from splatter of blood and saliva;
- rubber dam should be used in restorative dentistry wherever possible;
- up-to-date immunization status must be maintained for dentists and staff with patient-related duties. This includes Hepatitis B, measles, mumps, rubella, and influenza.
- appropriate sterilization methods should be used on all dental instruments.
- handpieces and similar intra oral devices should be sterilized according to the manufacturer's directions; if not sterilizable, they must receive appropriate high level disinfection.
- Counter tops, working surfaces and operatory furniture, especially if aerosols and/or blood splatter will be generated, should be protected by disposable covers and/or disinfected by a suitable liquid.
- Utilization of disposable materials is encouraged. Disposable materials should be discarded in plastic bags. Sharp items, such as needles and scalpel blades, should be placed in puncture-resistant containers prior to disposal.
- A high temperature wash cycle, with normal bleach concentration, followed by machine drying is recommended for clothing. Dry cleaning and steam pressing is also appropriate. ■

*Approved by the
Board of Governors
Canadian Dental Association
March 1988*

GUIDELINES FOR THE CONTROL OF RADIATION IN THE DENTAL OFFICE

CANADIAN
DENTAL
ASSOCIATION

Introduction:

Since the Federal Government maintains jurisdiction over the standards of construction and functioning of x-ray equipment, while its installation, registration and office design criteria for its use are promulgated by provincial legislatures, any guidelines developed by CDA for the use of x-radiation in the dental office should not deal specifically with legislative areas, but rather set forth standards of practice for dentists which reflect and demand professional competence and judgement.

General Guidelines

1. All x-ray equipment must conform to the Federal requirements of the Radiation Emitting Devices Act.
2. All equipment installation and room design criteria, e.g. with respect to wall insulation, (lead lining or equivalent) must be in conformance with provincial regulation. In the absence of existing provincial regulations in any particular jurisdiction, the dentist should refer to Health & Welfare Canada Safety Code 22, National Council on Radiation Protection & Measurements, Report 35, or the ADA Recommendations on Radiographic Practices, 1981.
3. All operators should possess an adequate knowledge of radiation physics, radiation hazards and be able to produce consistent radiographs of diagnostic quality with a minimum of overall radiation exposure. All operators should be licensed or certified according to a standard recognized by the provincial dental licensing body. Radiation Protection licensure may also have to be achieved through the dental associations.
4. It is highly desirable that a regular inspection program of x-ray equipment (usually 3 years) be carried out on a constant basis. It is recommended that a program of quality assurance be established in all aspects of radiological practice in the dental office on at least an annual basis.
5. It is highly desirable that the operator/owner request a radiological technologist, radiation physicist or similarly qualified person to perform a regular inspection of the x ray equipment to assess radiation output and "normalize" the x-ray taking system; that is, ensure that existing exposure and processing conditions are producing radiographs within an acceptable exposure range.
6. An exposure guideline chart should be fixed near the x-ray time indicating kVp, mA and the exposure time to be used for children, adults and edentulous patients.
7. The dentist should view exposed radiographic film under optimal conditions. A magnifying glass with the variable intensity viewer is desirable. Extraneous light should be minimized.
8. It is highly desirable that dentists enroll in continuing education in the many aspects of diagnostic radiology, physics of radiology and radiation biology.

Protection for operators:

Any female operator who suspects or knows she is pregnant must be assured that for the duration of her pregnancy she will experience minimum radiation exposure.

Operators in Training

1. Students in radiography training programs must work under the supervision of a licensed dentist.
2. Students in radiography training should be 18 years of age. Any student less than 18 must not receive any occupational radiation as spelled out in Safety Code 22, Health and Welfare Canada.
3. Students *must not* be exposed to the primary X-Ray beam.
4. Deliberate exposure of an individual for training purposes must not be performed.

General guidelines for office personnel:

1. A room must not be used for more than one x-ray procedure simultaneously.
2. Persons not essential to the radiologic procedure must not be in the room during the patient exposure.
3. When the operator has no shielding, i.e. cannot leave the room, he/she should stand between 90° and 135° to the primary beam and 2 meters from the subject being radiographed. There is no requirement, in a dental workload, for the operator to wear a protective apron.
4. The dental film should be fixed in position using a holding device.
5. If parents or escorts are called to assist, then protective clothing should be worn by those persons.
6. The x-ray housing must not be held by the hand during operation.
7. All dental personnel involved in the taking and processing of radiographs should wear personal dosimeters. If continuous use is not felt necessary, then periodic use is recommended to ensure that the current radiologic practice is exposing personnel to acceptable radiation limits as defined in Safety Code 22.

8. In situations where personnel record any radiation on a regular basis on the dosimeter badge, remedial steps must be taken to correct the situation, as the normal situation for good dental radiology should be nil.

Guidelines to protect the patient:

The risk to the individual patient from a single dental radiograph is very low. However, the risk to a population is increased by increasing the frequency of radiologic examinations and by increasing the number of persons radiographed. Every effort should be made to minimize the amount of radiation required necessary to diagnose the situation.

1. The prescription of a radiologic examination by a licensed dentist must be based on a clinical examination for the purpose of obtaining information not readily available from other sources.
2. The justification for taking dental radiographs must be determined by a perceived need to obtain specific information which could contribute to diagnosis or prevention rather than utilizing the concept of the routine periodic examination with or without examining the patient.
3. One should determine if any recent radiographs are available and see if those are adequate.
4. When a patient changes dentists and diagnostic information is sought which might have been available on previous radiographs, then the new dentist should attempt to obtain such radiographs, rather than routinely issue a new prescription for radiographs.
5. The number of radiographs required should be kept to the minimum, consistent with obtaining the required diagnostic information.
6. Operators should select films of a speed and quality that will permit the production of radiographs of

an acceptable diagnostic quality with minimum exposure of the patient to radiation.

7. The quality of radiographs should be monitored routinely to ensure that diagnostic requirements are met.
8. The decision to repeat films should not be based on ideal technical requirements as past practice, but rather be based on a lack of required diagnostic information as prescribed.
9. A lead apron and thyroid collar must be used when exposing intra-oral films.
10. The x-ray beam for intra-oral radiographs should be collimated so that it irradiates only the minimum area necessary for the examination. Under no circumstances should it be in excess of 7 cm. (2¾") at the level of the skin. Rectangular collimation is now available and dental machines should be converted to it as training of staff permits.

X-Rays and the Pregnant Patient

In dental radiology, good radiological practice reduces the foetal dose to an acceptable minimum and does not constitute a significant hazard, however

Elective procedures should be deferred until after pregnancy.

Conclusion:

There is really no known "safe" level of radiation exposure. The frequency of a radiological examination is a matter of clinical judgement. The selection of equipment and techniques used is the decision of the dentist. The aim of these guidelines is to ensure that dental offices comply with the ALARA (as low as reasonably achievable) principle and keep the amount of patient radiation exposure at as low a level as possible given current accepted radiological practice. ■

*Approved by the
CDA Board of Governors
March 1988*

Ellen Brownstone
B.A., R.D.H., M.Ed.

STRATEGIC PLANNING CONFERENCE

On February 8th and 9th, 1988 I attended a conference on Strategic planning hosted by the Canadian Dental Association and sponsored by the Canadian Fund for Dental Education. Forty-nine participants representing C.D.A., C.D.H.A., C.D.A.A., Canadian Faculties of Dentistry, provincial licensing authorities and the National Dental Examining Board attended the conference.

Formal presentations were made on strategic trends impacting on Dentistry and Health Care, the United States PEW National Dental Education Program, a model for strategic planning and a 1987 U.S. oral health adult survey. Small working groups met over two days to discuss topics related to strategic planning for future dental practice and dental education. Broad topics included environmental factors affecting dentistry, methods of preparing for change, and participants in planning. Significant trends in Canada influencing dentistry were identified as:

1. changes in disease patterns (widespread decline in incidence of caries, increase in infectious diseases, possible change in periodontal disease)
2. changes in manpower utilization (changing roles of dental hygienists, dental assistants and other allied health professionals, independent Dental Hygiene practice)
3. changing demographics (declining birth rate, aging population, possible increase in average age of students, increase in number of women in dental schools)
4. technological advances (dramatic changes in dental practice – lasers, caries vaccines, advances in cosmetic industry)
5. consumerism (greater awareness on part of consumer of good

dental care and dental treatment and need of consumer to make informed decisions about dental treatment)

6. increased use of third party payment (higher in Canada than in U.S.), but regional differences within Canada are important.

It was determined that a national perspective in strategic planning is possible and not only appropriate, but essential. It was agreed that the following organizations should be included in the development of a strategic plan:

- Canadian Dental Association (C.D.A.)
- Association of Canadian Faculties of Dentistry (A.C.F.D.)
- Canadian Association of Dental Researchers (C.A.D.R.)
- Canadian Dental Hygienists' Association (C.D.H.A.)
- Canadian Dental Assistants Association (C.D.A.A.)
- provincial licensing bodies/registrars
- National Dental Examining Board (N.D.E.B.)
- government
- lay members of public

Consultants and resource people should be used to provide support when appropriate.

In preparing for changes to health care delivery, dental practice and dental education, dental schools, practitioners and licensing bodies have responded to date, in the following manner:

1. Dental Schools

- expanded continuing education (greater emphasis on participatory courses and increased use of new educational technologies)
- overcrowded curriculum due to increased knowledge base but positive in that curriculum now being viewed as faculty-wide rather than departmentally

- greater demands on faculty for meeting promotion and tenure criteria and focus on increasing credentials

- A.C.F.D. summer teaching institute

2. Practitioners

- graduates choosing non-traditional practice sites (group practice, extended care facilities, satellite practices in rural areas)
- general practitioners increasingly providing comprehensive patient care rather than referring patients to specialists
- growth in activities of professional associations.

3. Licensing Bodies

- N.D.E.B. – administered self-learning
- self-assessments for practitioners – competence assurance

Barriers to change include:

1. lack of sound epidemiological data re: disease patterns and trends, demand for dental care, services provided and public opinion
2. lack of qualified individuals to meet research needs and act as leaders of change
3. need to teach clinical competence in a four-year dental program
4. resistance to change – desire to maintain status quo

Opportunities for change were identified as:

1. faculty and management levels are now receptive to change
2. belief that a cooperative national effort to effect change and prepare for the future exists
3. focus on "dental education" rather than "dental training"
4. profession increasingly responsive to self-governance. ■

Carole K. Ono
C.D.H.A. representative

Report on Canadian Dental Association's Conference on Infection Control

February 28/29, 1988
Toronto, Ontario

The Canadian Dental Association is to be highly commended for organizing an excellent Conference on Infection Control, February 28 and 29, 1988, in Toronto. The first day of the conference was devoted to scientific and ethical/legal sessions and open to all dental personnel while the second day permitted selected national and provincial delegates to meet for purposes of reviewing and revising existing CDA policies on infection control. Since the conference, the CDA Board of Governors (88-03-26) have approved both the "Statement on the Ethical and Legal Considerations of Treating Patients with Infectious Diseases" and "Recommendations for Infection Control Procedures" (see appendix 72 and 73).

Given the current concern of dentists, dental hygienists, dental assistants and their families, it was appropriate that the focus of the scientific and ethical/legal sessions was on AIDS.

Experts from various disciplines provided a comprehensive overview of current data on HIV infection and its implications for the provision of dental care. The perspectives presented included a general practitioner's viewpoint and concerns, current statistical data in Canada, current scientific research and the legal ethical and social issues related to the treatment of clients with infectious diseases.

The scientific session in addition to providing the most recent information on AIDS provided recommendations such as the following:

Gloves

- wash hands prior to gloving with an anti microbial agent
- change gloves between clients
- wash hands with each change of gloves
- if exiting operatory, remove gloves and don new ones upon entry (more recent articles suggest washing gloves and wearing looser

fitting examination gloves when leaving the operatory to answer the telephone etc.)

Masks

- if moist or damp, change
- don't leave lower ties undone because aerosols move upwards

Glasses

- should have shields on the sides

Accepted Sterilization Methods

1. Autoclave - 15 lbs/sq inch for minutes at 121 C
2. Chemiclave
3. Ethylene Oxide Gas
4. Liquid Alkaline Glutaraldehyde (cold sterilizer for 7 to 10 hours in undiluted solution)

Accepted Chemicals for Disinfection of Surfaces

- aqueous iodine solution
- iodine provine solution (1 part iodine to 9 parts alcohol)
- sodium hypochlorite (1% solution)

Handling of Impression Material

1. Rinse immediately to remove blood and saliva
2. Place in zip lock bag for transport to lab
3. Immerse in aqueous iodophor solution for 10 minutes and rinse
4. Pour impression
5. Have receiving area in lab

The issue of AIDS and the treatment of such clients with infectious diseases in dental practice has over recent years been a hotly debated and often emotionally charged issue for dentists, dental hygienists and dental assistants. The moral, ethical and legal questions in the minds of many were addressed by a panel of experts in these fields. It was clearly stated by a member of the Canadian Bar Association that members of the dental health care profession not only are expected to treat clients with infectious diseases but have an ethical and legal responsibility to do

so. Individuals have the right to dental care and may not be discriminated against due to their physical disability. It was however suggested that individuals in advanced stages of AIDS are likely to be medically compromised and would better be served in a clinical setting such as a hospital.

The message conveyed from a legal perspective was strong but clearly indicated the responsibility of all dental health care personnel. The profession was cautioned that all health care workers have accepted the element of risk upon entering the profession and therefore must conduct themselves accordingly and treat all individuals, taking the appropriate precautions. Dental hygienists and dental assistants may not refuse to treat identified HIV positive clients. The refusal of treatment would be grounds for immediate dismissal, probably without notice. The potential consequences for refusal to treat include possible prosecution on the basis of violation of the human rights code, conviction and fine or the possible charge of dishonorable unprofessional conduct with the results of a fine, suspension or irrevocation of licence.

From a social perspective, dentists, dental hygienists and dental assistants were cautioned that a refusal to treat HIV positive clients would lead to concealment of medical status by clients. This could result in dental health care professionals practising with a false sense of security and could result in increased risk.

In summary the CDA Conference on Infection Control provided not only current scientific data and statistics on AIDS and HIV infection but provided direction to all dental health personnel with respect to developing infection control procedures to ensure the delivery of safe dental care. ■

THE FIRST INTERVIEW; LOOK and LISTEN

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For the newly graduated dental hygienist it is especially important to have employment-seeking guidelines in order to best evaluate a potential employer and employment situation. The process of seeking dental hygiene employment ranges from identifying the potential employer(s), to designing the appropriate resume, through securing the interview, accepting a position, agreeing on the employer/employee contract, to trialing the position and, finally making a firm commitment to the employer.

This article focusses on the candidates concerns during the first interview for a private practice position. Three questions can be utilized in order to obtain the information about the practice and the position to help you make an informed decision.

Look:

Observe the location of the practice. Is it on a convenient transportation system? Is there parking available for your car? What is the cost of parking? What is the travelling time by public transportation? By car?

Mentally record your initial reaction to the building premises, the office entrance, the waiting/reception room, the initial greeting you receive. How is your comfort level in the surroundings? By arriving early for an interview and spending some time in the waiting room you can get a feeling for the practice procedures and flow.

Take advantage of an office tour if one is offered. What is the practice configuration? How many staff members? How many dentists? Open or closed plan? Hygienist's

space? Sterilization procedures? Clinical procedures? Casual flow? Structured flow? Reception procedures? Business procedures?

Listen:

What information would you like to have about the employment situation? Listen to the potential employer's introduction and overview of the position. Then, to elucidate the answers you are seeking about the position ask...

Can you tell me about your practice?

Some of the information you are seeking about the practice is: What is the practice work period? What hours and days would you be employed? What is the lunch/dinner period? Are there other breaks?

Are there staff meetings? When are they? Are they during office hours? Are they before or after office hours? Who attends the meetings? How many staff members are there? Has a dental hygienist been employed by the practice before?

Who are you directly responsible to? Who supervises your dental hygiene treatment? What legal implications are there in your province regarding the physical presence of your employer/supervisor when you are working in the office?

What is the average patient load per day for dental hygiene services? What is the employer's average patient load? Does the employer see every patient the dental hygienist sees? When? How?

What instruments are available for use? What supplies are available? What are the ordering procedures? What sterilizing procedures are followed?

What are the specific dental hygiene responsibilities? Is a recall

system developed for the office? Who is responsible for the recall system? What chart system is being utilized in the practice? Does it incorporate medical history? Dental history? Periodontal charting? Homecare assessment and instruction?

Is a computer being utilized for any or all of these procedures? Whose responsibility is the input of data?

What method of compensation is utilized by the office? Salary? - Hourly? Daily? Monthly? Salary plus commission? Just commission? What benefits are included? What are the conditions of employment?

If you have listened and these queries and others that you may think of have been answered it is now time to introduce the second question.

How do you see me fitting into your practice?

If you still require further information at this initial interview stage now ask...

Can you tell me the basic guidelines for working here?

Remember that this is just the first interview. The employer as well as yourself are on a simple fact-finding course to see if you are suitably matched. The employer has reviewed your resume and knows something of you before your initial meeting. The employment process progresses through the first interview and if a commitment is made by both parties to continue the process then arrangements should be made for the next step, the observation/participation visit and, finally, the second interview to seek further answers to the unanswered questions and many details to be discussed prior to accepting a position.■

HEPATITIS B, IMMUNIZATION, AND PREGNANCY

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Introduction

Hepatitis B is a serious communicable disease which may be acquired from the dental working environment. Vaccination is the most effective preventive technique, and when combined with accepted infection control procedures will dramatically reduce the risks of Hepatitis B transmissions in the dental office. After a brief description of the disease, this paper will describe the immunization protocols particularly as they apply to pregnant dental health care workers.

Hepatitis B

1. Transmission

Hepatitis B is a viral disease caused by the Hepatitis B virus (HBV). In 1975 the World Health Organization recognized Hepatitis B as an occupational hazard for the dental profession¹. The usual and most effective route of transmission is by parenteral injection², ie when infectious blood containing HBV enters the body of a susceptible host. In dentistry this may occur via:

- accidental or previous cuts or abrasions on the operator's hands being exposed to infectious blood;
- puncture wounds from contaminated instruments; or
- infected, unsterilized instruments contacting bleeding areas in the mouths of susceptible patients.

Less efficient transmission of the virus to dental personnel occurs via pulmonary inhalations or corneal implantations of infected droplets of blood, present in the aerosols produced by ultrasonic scalers and handpieces². Tears and sweat contain the virus and are potential routes of transmission². Infection from contaminated saliva can occur, and although there are few documented cases of this method of spread³, there is one report of Hepatitis B being acquired from a human bite⁴. To date, there is no evidence of patients or dental personnel contracting Hepatitis B from contaminated working surfaces or operatory furniture².

The routes of transmission dictate that dental health care workers should:

- be immunized to counteract parenteral injections of the virus;
- wear appropriate protection (gloves, masks, eyeglasses) to prevent direct exposure to blood, saliva, and aerosols;
- sterilize all instruments used in and around the oral cavity; and
- maintain a schedule of regular operatory hygiene and cleaning.

2. Clinical Course

Once the HBV has been transmitted to a susceptible host, usually via a parenteral injection, infection occurs. Commonly this presents with no symptoms and no jaundice, sometimes patients may be aware of a mild 'flu-like illness. Therefore, the majority of persons infected with the virus are unaware of the infection having occurred. In a few cases patients may be acutely ill with definite jaundice, and while most will recover sudden death is a possibility.

Whether the infection has been hardly noticeable, mild, or acute, approximately 10% of all patients infected by HBV will become chronic carriers⁵. In such individuals the HBV continues to circulate in the blood stream in an active state and the potential to infect others persists. Since most people are unaware of having acquired an HBV infection, many chronic carriers are ignorant of their status and of their ability to transmit the disease. Unfortunately a small percentage of the chronic carriers will, over time, develop serious consequences of HBV infection, such as chronic hepatitis, liver cirrhosis and liver cancer.

3. Incidence

The Hepatitis B incidence rate during 1978 in the U.S.A. was 6.9 per 100,000 population⁶. Canadian statistics suggest an approximately four fold increase in the number of cases reported in 1985 compared to 1975, with a rate of 7.7 per 100,000 population in 1983⁷. Why, after the introduction of the vaccine in 1982, has the incidence rate continued to rise? The reason is attributable to the immunization programs. Health care workers and the institutionalized disabled account for less than 10% of Hepatitis B cases. However it is among these two groups that the vaccine has been promoted⁸. On the contrary, no effective immunization programs have been directed at homosexuals, intravenous drug abusers, and promiscuous heterosexuals, who collectively account for the vast majority of new Hepatitis B cases⁸. Until such programs are initiated there will be no significant decrease in the incidence of Hepatitis B⁸. Dental

personnel should be aware of this fact, and not be lulled into the false premise that the vaccine will, in the near future, eradicate Hepatitis B from our society.

Immunization

1. The Vaccines

There are two methods of immunization ie passive and active.

(i) Passive immunity is achieved by transferring antibodies from an individual who has recovered from the disease to an individual who has or is at risk of acquiring the disease. Unfortunately these antibodies are slowly destroyed by the new host, thus the protection offered by passive immunity is temporary. Passive immunity for Hepatitis B is acquired from Hepatitis B immunoglobulin (HBIG).

(ii) Active immunity is achieved by exposing the at risk person to a variant of the virus or bacterium which will not cause infection but which will stimulate the individual's immune system to generate antibodies against the specific microorganism – the antigen. The antibodies remain for a long period and are able to destroy the antigen whenever it enters the body. Active immunity for Hepatitis B is acquired from a variant of the HBV called Hepatitis B surface antigen (HBsAg) which stimulates the production of Hepatitis B surface antibody (HBsAb). Presently, three HBsAg containing vaccines have been approved for sale in Canada. They are Heptavax-B, Recombivax-HB, and Engerix-B. The three vaccines are equally effective in inducing an appropriate antibody response in healthy individuals. All are given in the same method, ie by injection into the deltoid muscle of the upper arm in three doses – at zero month, one month later and five months after the second injection. The side effects of the vaccinations are minimal usually consisting of mild, transient, redness and soreness at the injection site⁶.

The differences in the vaccines are as follows:

(i) Heptavax-B (manufacturer Merck, Sharp and Dohme)
This has been available for approxi-

mately five years and was the first Hepatitis B vaccine licenced for use in Canada. It is prepared from the blood of human carriers of Hepatitis B. Although the manufacturing process deactivates infectious agents which may have been present in the blood, the association with human blood may have been one reason why this vaccine was not accepted by all health care workers⁸. However, Heptavax-B has proven to be safe, effective, and not an agent for transmitting diseases such as AIDS⁹.

(ii) Recombivax-HB (manufacturer Merck, Sharp and Dohme)
In the summer of 1987 this first genetically engineered vaccine was licenced for sale in Canada⁸. Recombivax-HB is made from a yeast which is capable of producing HBsAg. The vaccine is not derived from blood products, and since it is manufactured from a laboratory process there is no shortage of supply.

(iii) Engerix-B (manufacturer Smith, Kline and French)
This second genetically engineered vaccine was licenced in Canada in the fall of 1987. It is produced in a similar manner as Recombivax-HB. As a competitor Engerix-B may reduce the retail costs of the other vaccines.

2. Utilization

Recent studies indicate that in 1983 approximately 17% of U.S. dentists had received the Hepatitis B vaccine¹⁰. In 1985 this had risen to 36%¹⁰, and to 44% in 1986⁶. A survey of dentists attending the 1985 Canadian Dental Association Convention revealed that 25% of the respondents had been vaccinated¹¹. There are no readily available figures on the utilization rate among dental hygienists and assistants. However some indication may be inferred from the statement by the Centers for Disease Control (unpublished data) that in 1987 only 36% of high risk health care workers had received the vaccine. The potential but unfounded danger of acquiring infectious diseases from Heptavax-B may have been a factor⁸, however this has been eradicated by the genetically engineered vaccines. The cost of the

vaccine (approximately \$130-150) may have been a consideration but with competition in the market place from Engerix-B, this excuse may no longer be valid. The ambiguity surrounding the need for pre- and post-vaccination blood tests may have concerned some health care workers. The Canadian National

Advisory Committee on Immunization (CNACI) does not recommend routine pre-vaccination screening of blood for HBsAb, nor does it recommend routine post-vaccination screening to assess the effectiveness of the vaccine⁹, principally because the vaccine is capable of inducing a positive antibody response in more than 90% of individuals⁹. The uncertainty regarding the need for a booster vaccination may have been another reason for the relatively poor utilization by health care personnel. A recent article on Hepatitis B prevention suggests that adults and children with normal immune status have no need for booster doses during the first five years after vaccination⁶. The CNACI recommends that a booster dose of vaccine be given five years after completion of the initial course of immunization to those who continue to be *exposed to the Hepatitis B virus*⁹. These clarifications may resolve some doubts still expressed by health care workers, including dental hygienists and assistants who must consider the added dilemma of acquiring Hepatitis B infection during pregnancy.

Pregnancy

It is natural that female dental care workers – the majority of whom are in the child bearing age – should be concerned about the implications of Hepatitis B and pregnancy.

1. Vaccination

Ideally all female dental personnel should be vaccinated against Hepatitis B prior to becoming pregnant. The manufacturer's monographs^{12,13} on Heptavax-B, Recombivax-HB, and Engerix-B, indicate that the effect of these vaccines on fetal development is unknown, and that immunization

during pregnancy is not recommended. However, since these vaccines contain only noninfectious HBsAg, vaccination should entail no risk to the pregnant woman or fetus⁶. The recent recommendations from the Centers for Disease Control⁶ and the CNACI⁹ are that "*pregnancy should not be considered a contraindication for women in high risk groups who are eligible to receive this vaccine.*" Female dental workers are members of a high risk group, and should adopt this philosophy.

2. Boosters

The Centers for Disease Control⁶ states that "booster doses need not be withheld from pregnant women who are at ongoing risk of HBV infection." Thus dental workers who become pregnant approximately five years after vaccination should not deny themselves and the fetus the benefit of a booster, which is a single dose of the recommended vaccines^{6,9}.

3. Children

Hepatitis B infection in a pregnant woman is a serious complication since it may induce a chronic infection of the child. This, is additional justification for female dental workers to be vaccinated prior to pregnancy.

It has been estimated that 60% of pregnant women acquiring an acute Hepatitis B infection at or near the time of delivery, will transmit the HBV to their infants¹⁴. This increases to 80-90% among pregnant asymptomatic chronic carriers of HBsAg¹⁵. Unfortunately 85% of the infants so infected will become chronic carriers of Hepatitis B¹⁵. In addition to being a reservoir of future Hepatitis B infection, such offspring are prone to childhood liver diseases and death in early adulthood from cirrhosis and liver cancer^{15,16}. This vertical transmission from mother to child occurs not in utero but at the time of delivery¹⁷. It can be effectively prevented by appropriate use of immunoprophylaxis.

The vaccination protocol for children whose mothers have an HBV infection starts at birth. It begins by

giving the newborn HBIG which causes an immediate circulation of antibodies to counteract any virus acquired from the mother¹⁷. At the same time the initial dose of vaccine is administered¹⁷. This technique has resulted in a 90% reduction of transmission from mother to child. To ensure that all children born of HBV infected mothers receive this protocol it is now being suggested that all pregnant women, without regard to known risk of exposure to HBV, should have an HBsAg screening of their blood preferably during the third trimester^{14,16,17}. The Canadian National Advisory Committee on Immunization supports this statement and adds⁹, that if routine screening is not implemented it should be performed on pregnant women who:

- have a history of acute or chronic liver disease;
- were born in Asia, sub-Sahara, or Haiti;
- are of Inuit, native Indian, or Asian descent;
- have been rejected as blood donors because of hepatitis;
- work or reside in institutions for the mentally handicapped;
- are staff or patients of hemodialysis units;
- have used illicit injectable drugs;
- have household contacts with individuals having acute or chronic Hepatitis B;
- require infusions of blood or blood products; or
- have frequent occupational exposure to blood and blood products (ie *dentists, hygienists, assistants*).

The screening of such pregnant women and, where necessary, appropriate vaccinations of the newborn will restrict this route of transmission, prevent unnecessary liver disease in a new generation, and reduce the reservoir of Hepatitis B virus.

Summary

Hepatitis B is an infectious disease which may have serious consequences. Many health care workers by the nature of their occupational activities are at high risk for acquiring a Hepatitis B infection. Although the current vaccines will successfully immunize against Hepatitis B, conservative estimates indicate that less than 50% of "at risk" health care personnel (including dental workers) have been vaccinated. The clarification of booster requirements combined with the availability of genetically engineered vaccines may alter this poor record of compliance.

While the Hepatitis B vaccines are relatively new they are remarkably safe and effective, particularly in the prevention of chronic Hepatitis B of the newborn. It is strongly recommended that all female dental personnel be vaccinated. This may be performed during pregnancy. If by the third trimester the vaccination schedule has not been completed, a blood test for evidence of Hepatitis B infection should be performed.

Immunization against Hepatitis B is safe, preventive medicine. It is definitely recommended for all female dental health care workers, especially for those who are or anticipate becoming pregnant. ■

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Dates to Remember 1988

- June 1-8 ■ American Dental Hygienists' Assoc. 65th Annual Session - Seattle, Wash.
- June 9-12 ■ CDHA Board of Directors Meeting - Ottawa, Ont.
- June 16-18 ■ BCDHA Convention - Vancouver, B.C.
- June 23-26 ■ Dalhousie Dental Hygiene 25th Anniversary - Halifax, N.S.
- August 8-10 ■ International Conference Preventive Dentistry - Karlstad/Sunne Sweden
- August 21-24 ■ CDHA National Convention "Congregate in 88" - Edmonton, Alta.
- October 17-22 ■ National Dental Hygiene Week - Canada-wide

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ROOT PLANING

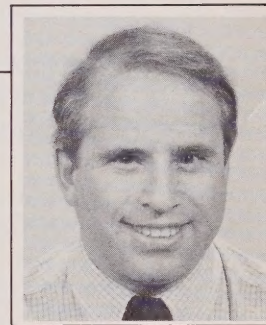
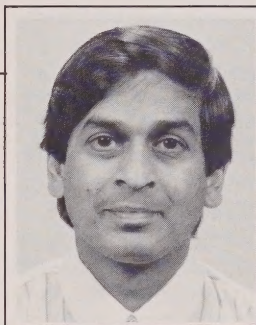
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Can root planing be effective with different surgical flap procedures?

Periodontal surgery has been used to gain access for instrumentation of periodontally involved root surfaces and to reduce the depth of deep pockets. Numerous studies have been performed evaluating the effect of surgery.^{4,5} The outcome of these studies suggest that, irrespective of the surgical procedure, a degree of pocket reduction is obtained and there is a tendency for some increase in the clinically assessed level of attachment. These positive tissue responses only occur, however, in the presence of adequate plaque control achieved through personal oral hygiene and professional maintenance procedures.⁶

Can root planing be effective without surgical access?

Recent studies examining the effect of root planing without surgical access (so-called nonsurgical therapy) have also found that this procedure improved the clinical parameters of periodontitis when followed by regular maintenance procedures. Badersten et al⁷ evaluated the effects of root planing and oral hygiene instructions on

moderately advanced periodontitis (4-7 mm pockets). Significant reductions were obtained in number of bleeding sites and probing depths when evaluated 13 months after therapy. They questioned, however, to what extent nonsurgical therapy is feasible in patients with severe periodontitis and carried out a further study of root planing used alone to treat severely advanced periodontitis.⁸ In these patients pockets 7 mm or greater were treated by root planing and the tissue response assessed 24 months later. Again a positive response to therapy as determined by marked decreases in gingival bleeding scores and gain of clinical attachment levels was found. Interestingly, a small decrease in clinical attachment levels was found in shallower pockets (less than 4 mm in depth), a finding that had been previously demonstrated for initially shallow pockets after surgical procedures.^{5,9,10}

The above studies support the long-held clinical belief that root planing can improve the periodontal status of patients with adult periodontitis. They do not, however, provide information which can help decide whether better results might have been achieved if root planing was done during surgical procedures which could provide improved visual

Root planing has been defined by O'Leary as "instrumentation to remove the microbial flora on the root surface or lying free in the pocket, all flecks of calculus and all contaminated cementum and dentine."¹ The purpose of root planing is to achieve a root surface which allows the adjacent soft tissues to exist in a healthy state or at least is not associated with pathological changes which might result in loss of attachment.^{2,3}

The aim of this paper is to briefly review recent literature comparing root planing with and without surgical access to the root surface when used in the control of moderate to advanced periodontitis.

and instrumental access. Such studies require a more direct comparison of the two procedures. This can be done either by comparing groups of patients treated by one or other of the approaches under otherwise similar conditions or, preferably, by "split-mouth" studies whereby the procedures being compared are carried out in comparable quadrants of the same patients.

Is root planing more effective with or without surgical access short term studies?

Westfelt et al¹¹ investigated 5 different surgical procedures, each of which included root planing, and used root planing alone as a control in a split-mouth design. The flap procedures were done with or without osseous contouring. The tissue response was assessed 6 months after active treatment. This short time period was considered to better reflect the initial active treatment itself rather than the effectiveness of maintenance procedures or reoccurrence of disease. Reduced clinical probing depths were found in about 95% of all sites treated by these procedures. There were no significant differences amongst the various surgical approaches used and root planing achieved generally the same result whether done as the sole treatment or as part of a surgical procedure. Isidor et al¹² treated 17 patients with advanced periodontal disease using two different types of surgical flap procedures, or root planing only in a split-mouth study. Bone contouring was not performed in any of the surgical procedures. The periodontal status was assessed 3 and 6 months following therapy. Root planing resulted in considerable reduction of probing depths, although more shallow pockets were obtained following surgery. Root planing without prior surgical access also resulted in slightly more gain of clinical attachment than the 2 surgical procedures. Lindhe et al⁹ compared the effects of root planing to a flap procedure during a 24-month period and reported that root planing and scaling alone were

almost as effective as their use during flap access surgery (modified Widman flap) in achieving gingival health and in preventing further destruction of the periodontium.

Longer term studies

Longer term studies on the effect of root planing with and without surgical access are relatively few. Pihlstrom et al¹³ compared the effects of modified Widman flap with root planing alone over a period of 6½ years in 10 patients and reported sustained reductions in pockets with initial probing depths of 4-6 mm with both types of treatment. Isidor and Karring¹⁴ assessed the effect of surgical and nonsurgical therapy during 5 years following therapy in patients with advanced periodontitis and noted that a small loss of attachment (up to 0.2 mm) had occurred in surgically treated areas whereas, a gain of 0.3 mm was obtained in areas treated by root planing. It thus seems apparent that root planing when used as a treatment procedure for moderate and advanced adult periodontitis not only results in a marked improvement of the condition according to the clinical parameters measured, but the extent of the improvement is generally the same whether it is done with or without periodontal flap access surgery.

Does this mean that periodontal flap surgery is an unnecessary treatment procedure for moderate to advanced periodontitis?

Probably not. It is important to recognize the limitations of treating periodontitis by root planing alone. The clinical studies reviewed, though consistent in their average findings, due to relatively small sample sizes may not have taken into account variables such as prominent cemento-enamel junctions, root concavities, proximity of adjacent roots, operator skill and instrument limitations,¹ which can influence the success of root planing for individual teeth or surfaces. Recent studies have corroborated the reported difficulty in achieving total calculus removal non-surgically^{16,17} and may explain why,

in an actual practice setting, the clinical outcomes with a modified Widman flap or flap curettage were significantly better than with closed curettage.¹⁸

Root planing carried out nonsurgically is time consuming. The favorable outcomes in these studies consistently required five to eight hours of root planing.^{13,15} These are treatment goals which may not be practical or feasible to achieve for all patients, especially when procedures are solely done by the dentist. The economic consequences of prolonged initial therapy would be less, however, if these procedures are undertaken by a hygienist. This could, as well, provide a greater opportunity for patient education and motivation about plaque control and, at the least, better prepare the periodontal tissues for surgical procedures that are deemed necessary and advisable.¹⁹

A final consideration is the limitation that may underlie any of the studies attempting to demonstrate differences between treatment procedures. These investigations may be hampered by the possibility that very few sites, amongst all the sites being examined, are actually experiencing active disease during the period under study.²⁰ This could mean that differences at these few sites may be masked by the majority of apparently inactive sites when averages are considered and little difference in treatment outcome would be demonstrated by different procedures.²¹

Conclusion

Current information suggests that root planing alone can be a primary therapy in treating moderate to advanced periodontal disease. However, each individual tooth and its surfaces being treated nonsurgically must be assessed for clinical attachment levels and bleeding on probing to pocket depth at frequent intervals. In the event of signs of deterioration of the periodontium, the site/root surface should be surgically exposed and treated. ■

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Canadian Dental Hygienists' Association
 1320 Carling Avenue
 Ottawa, Ontario
 K1Z 7K9

Application Deadline:

August 1, 1988

SELF ASSESSMENT TEST

ANTI-MICROBIAL THERAPY

- 1 The most commonly held theory related to the etiology of periodontal disease is currently thought to be:
- Specific plaque hypothesis
 - Homogeneous plaque hypothesis
 - Non-specific plaque hypothesis
 - Aggregate colony plaque hypothesis

- 2 In periodontal disease, which type of facultative anaerobes are considered to be the most pathogenic? Those found in:
- Loosely adherent plaque
 - Tooth attached plaque
 - Bone attached plaque
 - Connective tissue plaque

- 3 Periodontitis may best be described as:
- a chronic inflammatory disease with periods of remission and exacerbation
 - an acute inflammatory disease of long duration
 - a degenerative disease of the periodontium
 - a chronic inflammatory disease of the "over forties"

- 4 The best way to determine if active periodontal disease is present is by evaluation of:
- pocket depth over four millimeters
 - presence or absence of bleeding
 - texture and colour of gingiva
 - bone loss evident on radiographs

- 5 An ideal anti-microbial agent is usually thought to have the following properties:
- aerobic; non-specific; topical
 - non-specific; quick-acting; topical
 - hypoallergic; anaerobic; systemic
 - specific; long-acting; non-toxic

- 6 Which of the following is (are) generally considered to have anti-microbial properties?
- stannous fluoride
 - chlorhexidine
 - sanguinaria
 - all of the above

- 7 Use of oral irrigators is contraindicated in patients with a history of:
- Localized Juvenile Periodontitis
 - Aids related complex
 - Rheumatic heart disease
 - Necrotising Ulcerative Gingivitis

- 8 When implementing the specially adapted probe-tip of an oral irrigator into a pocket the clinician should use which of the following instrumentation principles?
- Work stroke; like a scaler.
 - Walk stroke; like a probe.
 - Cross-hatch stroke; like a curette.
 - Intermittent stroke; like ultrasonics.

- 9 Oral irrigation with an anti-microbial is best performed as a/an _____ to scaling and root-planing.
- alternative
 - replacement
 - preliminary
 - adjunct

- 10 Locally administered anti-microbial therapy is best implemented:
- During initial periodontal therapy
 - After surgical therapy
 - During maintenance therapy
 - In all phases of periodontal therapy

Ginny Cathcart
Dip, D.H., B.A., B.Ed.

Answer Key:
1. a
2. a
3. a
4. b
5. d
6. d
7. c
8. b
9. d
10. d

NOT A FAIRY TALE

by Mother Goose

Once upon a time there was a little girl named Little Red Riding Hood. As she grew older she thought and thought about what she wanted to do when she grew up. Finally she decided that what she really wanted to do was to become a dental hygienist. She realized how hard it would be to accomplish this because so many other young people wanted to do this as well.

Little Red Riding Hood worked and worked to make sure she was ready if she got the chance to study dental hygiene. She knew that schools teaching dental hygiene had hundreds of applicants for so few seats so she applied to as many schools as she could. Finally she was accepted into a program.

Once training started Little Red Riding Hood realized that her hard work had just begun. She worked and studied and practised for months under the careful guidance and continual scrutiny of more than a dozen dental hygienists and dentists. They all possessed licences to practise their professions. Amongst them they could offer her scores of years of experience of various kinds in dentistry and education to help her on her way. Little Red Riding Hood wanted very much to become a colleague. She strove diligently to prepare herself to try for her licence to practice.

Day by day through the ups and downs Little Red Riding Hood's knowledge increased and her clinical skills were refined. Finally the results were tallied. She found out that according to all those people who had evaluated her skills over all those months she had performed better

than a large percentage of her classmates. Her skills were more than adequate to ensure that she could perform successfully as a dental hygienist on a day to day basis. Graduation was a proud moment for Little Red Riding Hood and all her family and friends who had supported her through all her struggles.

Just one more hurdle before beginning her new job – the licensure examination. Surely that couldn't be too difficult although the thought of it was rather scary. Just two or three more people to convince of one's capability after already convincing nearly a score.

The examination results arrived and Little Red Riding Hood's world collapsed. She was not granted a licence to practice. Shaken, but willing to admit that perhaps the pressure of the examination situation had gotten the better of her, Little Red Riding Hood availed herself of further clinical experience before trying again.

At the supplemental examination Little Red Riding Hood was determined to succeed. During her additional clinical experience more dental hygienists and dentists with those coveted licences to practice reassured her that her skills were adequate to the task. Little Red Riding Hood felt that she was wiser for the trauma of the first examination. On the supplemental try she didn't let the pressure throw her off. She worked carefully and managed her time. She had an opportunity to complete her assignment and assess her work. Little Red Riding Hood was convinced that she had done an acceptable job.

Now for the interminable wait for the results. They came. Again the shattering news of failure!

Now the representatives of the licensing organization seemed to Little Red Riding Hood to be far more akin to the "Big Bad Wolf" than to potential colleagues!

Wait! Perhaps there was some mistake. She thought back to her months of training. One of her classmates, Mary Mary, had much more difficulty coping with the demands of the program, especially the clinical work. Mary, however, sailed through the licensure exam the first time. Another of Little Red Riding Hood's classmates, Bo Peep, also graduated with lower grades than she had. Bo Peep had also been on the extra clinical experience but had managed to pass the supplemental exam. How could these things be?

So Little Red Riding Hood phoned the representative of Big Bad Wolf at the lair. "Was there a mistake made?" asked Little Red Riding Hood.

"No", replied Big Bad Wolf's representative "you cannot scale teeth adequately at this time Little Red Riding Hood but perhaps another week or two of clinical experience will improve your skills and enable you to pass the second supplemental examination."

"Do I have an opportunity to appeal the current decision?" asked Little Red Riding Hood.

Big Bad Wolf's representative explained how an appeal of the decision could be launched but during the conversation suggested to Little Red Riding Hood that past records indicated that few such appeals were ever granted.

Little Red Riding Hood pondered the events of both examinations and the comments provided by Big Bad Wolf's representative. Surely there must be an error somewhere. Could two people in a couple of hours observe serious flaws in her abilities that had eluded a score of similarly qualified evaluators over months of observation?



**HEALTHY
WEIGHT
IN '88**



She wrote the letter required to begin the appeal process and prepared for her "day in court". Big Bad Wolf wasn't finished with surprises! The next word she received was not regarding a hearing date but rather the terse information that the appeal committee had met and her appeal had been denied.

Now her only chance at licensure was to wait several weeks, try and avail herself of very limited opportunity to practice (if she was lucky enough to make any arrangements to practice at all) and hope that she was luckier on her last chance. The likelihood of living happily ever after seemed more and more remote.

Although the foregoing account reads like a fairy tale it is not fiction. The names have been changed to protect both the innocent and the guilty. Many of us are aware that this story accurately reflects reality for many competent graduates of accredited dental hygiene programs in Canada. Some of us have even lived through these nightmares.

Many candidates who fail licensure examinations (some of them more than once) have graduated in the top ten to twenty-five percent of their classes. Ongoing skill evaluations during a student's training are made by dental hygienists and dentists who possess the same professional qualifications as the examiners hired by the licensing organization. Unlike the licensure examination situation these evaluations are made over many hours of close observation over many months.

Furthermore, many full-time and part-time instructors bring to their positions more varied experience in dentistry and dental hygiene practice than many examiners. Also, due to the nature of the teaching situation these individuals are often more regularly subjected to ongoing peer review than are many examiners. However, it is only the latter who have the right to deem the graduates competent to practise.

The current system of clinical examinations for licensure often results in inaccurate assessment of competence. They create unnecessary financial burdens for graduates unjustly failed and delay the entrance of qualified individuals into a workforce that needs them. Such a system is also an insult to the intelligence and professional integrity of the dental hygienists and dentists involved in education.

Can anyone out there explain how such an invalid, illogical evaluation process will possibly benefit the graduates, the profession or the public? Surely we can do better! ■



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Regional Guide to Human Anatomy

The first edition of *Regional Guide to Human Anatomy* is a result of the combined efforts of Dr. Alan Tweetmeyer, Ph.D., Associate Professor, and Chairman, Division of Physical Education, Concordia College, Ann Arbor, Michigan, and Thomas McCracken, M.S., Dept. of Anatomy, Colorado State University. Lea & Febiger, Philadelphia 1988, 194 pages.

Curricular changes in the paramedical and other related programs during the past couple of decades thrust a challenge at the writers of anatomy texts. The leisurely days of studying gross anatomy in several hundreds of hours live no longer. One cannot expect students to use enormous textbooks geared to that approach.

The goal of this guide/workbook is to provide a conceptual format and necessary information upon which to build the knowledge of human anatomy.

The outline format will allow some program instructors to include more information where necessary, and in other cases to exclude certain areas that are not applicable to their curriculum. Thus this workbook can be used in a variety of courses, and the continually changing needs of students and teachers are approached in the workbook style text. From the students' point of view, this format allows immediate access to facts without wading through voluminous textual material.

By its nature, this workbook is student-oriented rather than being encyclopedic. The human body is here considered by regions. Surface anatomy is completely dispensed with.

Illustrations to be of value must be simple, accurate and convey definite ideas. Their simplicity encourages the student to reproduce them. This is well done in this workbook.

The guide/workbook is designed to make anatomy rational and interesting for a beginner, and as a good review guide when preparing for examinations.

Reviewed by
Jim Thind
B.Sc., M.Sc.
Instructor, S.I.A.S.T.

Nutrition and Dental Health

Ann Ehrlich, *Nutrition and Dental Health*, Delmar Publishers Inc., 1987, 295 pages.

"To present information that is as current and accurate as possible, in a manner that is readable and as easy to understand as possible" is Ms. Ehrlich's self declared responsibility to her readers. Her background as a certified dental assistant has most certainly given direction to her M.A. in nutrition. The author hopes that by reading this book, all those involved in dentistry will enhance their professional work and improve the quality of life for the individual and his or her family. She encourages all to study and learn more about exercise, lifestyle and stress reduction, yet the scope of this book is limited to the study of information and ideas for understanding nutrition and providing nutrition counselling for the dental patient.

The text handles a broad spectrum with regard to nutrition and oral health. Fourteen chapters cover discussion of basic digestion, absorption and metabolism, to an in-depth look at the food groups, the component molecules of each food group as well as vitamins and minerals. The text covers specialized need groups to nutritional disorders and assessing nutritional status. The role of nutrition in preventive dentistry leads into utilization of special diets for dental patients. The final chapters make distinction between nutritional education in the dental practice and nutritional counselling. A list of objectives leading into each chapter helps to identify important concepts. A short

multiple choice review exercise rounds off the chapter, but you won't find answers at the back of this book! We are forced to review the chapter if unable to answer a question affirmatively. New terms appear in boldface with a short definition in the glossary for review. All this along with an available instructor's guide suggests the use of this text for classroom study.

Photographs of deficiency diseases and oral manifestations are explained by the author as possibly misleading and confusing as well as irrelevant for the operator in traditional dental practice settings. Therefore, they do not appear in her book. There does appear, however, a small number of digestive phase and dietary allowance tables, diet plans, etc. The majority of the figures are simplistic "cartoon" type diagrams, depicting a tidbit of the chapter's information. The figure subtitle only reiterates what has been stated at one point or another in the chapter. These figures do help to break up the chapter somewhat, but do not serve a useful purpose otherwise.

Nevertheless, the author does more than relay facts. Time and again, she stresses the responsibility of the dental team as nutrition educator to its clients. Principles of good education are discussed as well as the limitations of the auxiliary and the dental setting as a whole in regard to nutritional diagnosis and treatment. Ms. Ehrlich has successfully reduced the sheer volume of the information (and misinformation) in the field of nutrition, oral health and counselling to a concise, up-to-date, yet easily read manual. Her personal approach has produced an excellent guide for anyone taking up the role of nutrition educator in the dental field or elsewhere.

Reviewed by
Monica DeWit, R.D.H., Barnston Island, British Columbia.

*Pg. 6, *Nutrition and Dental Health*, Ann Ehrlich, Delmar Publishers Inc., 1987.

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Successful applicant will be encouraged to become involved in Dental Public Health Programs.

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A decade of studies sheds new light on caries.

During the last decade, many studies have shown that the relative cariogenicity of foods is not related simply to carbohydrate content.^{1,2}



IN 1981, TESTS CARRIED OUT BY BIBBY³ SHOWED THE SPEED AT WHICH A FOOD OR DRINK CLEARS FROM THE MOUTH ASSOCIATED WITH ITS POTENTIAL CARIOGENICITY.

Contrary to previous opinion, stickier foods such as caramels and chocolates tended to clear from the mouth faster than foods not generally associated with stickiness such as bread and crackers.

This may be because milk chocolate and caramel contain soluble sugars which can be washed away more rapidly by saliva compared to bread which will not disperse easily and will adhere longer to the teeth.

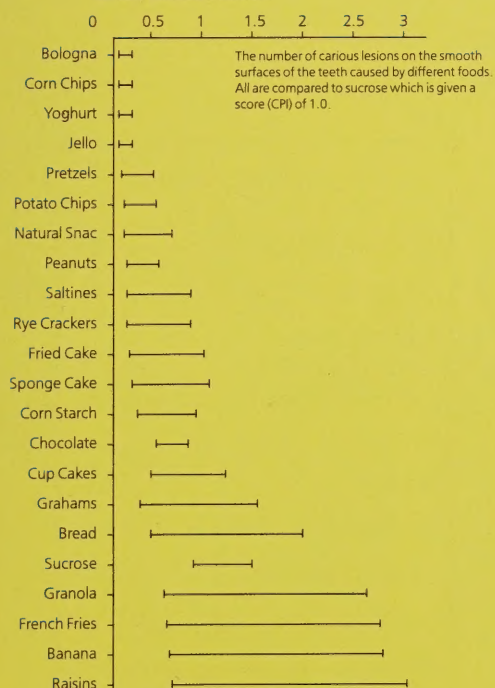
Amount of
carbohydrates
retained at three
intervals

Food	5 min	15 min	30 min
White bread	16.1 mg	10.0 mg	3.6 mg
Sponge cake	18.8	6.0	4.2
Chocolate milk	7.4	3.8	1.9
Raisins	16.8	5.7	3.0
Potato chips	12.3	4.9	2.5
Caramel	19.0	4.2	2.5
Cracker			
(oil sprayed)	23.8	8.5	3.7
Milk chocolate	19.0	6.8	3.0
Sugared soft			
drink	6.3	2.4	2.1
Hard mint	31.9	9.4	2.5
Cracker (plain)	33.6	10.4	3.3

Showing amount of carbohydrate remaining in the mouth after an average portion has been eaten.¹⁰

IN 1985, MUNDORFF ET AL⁴ EVALUATED THE CARIES POTENTIAL OF A VARIETY OF FOODS. The results showed that confections were no more cariogenic than foods previously considered "safer for your teeth" such as wheat flakes and raisins.

Caries Potential Index CPI



Mundorff et al cariogenicity study.



IN 1986, A STUDY ON "ORAL FOOD CLEARANCE AND THE pH OF PLAQUE AND SALIVA"⁵ concluded that "Foods with higher content of sugar were removed more rapidly and depressed the pH of the plaque for a shorter period of time than did starchy foods containing less sugar".



CONFECTIONS IN A NEW LIGHT.... MOST FOODS CONTAIN FERMENTABLE CARBOHYDRATES AND ARE A POTENTIAL CAUSE OF TOOTH DECAY. While confections are no exception, they are simply no better or worse than any other such foods. Advances in caries prevention through flourides and improved oral hygiene continue to reduce the likelihood of dental caries. Confections, consumed within the confines of a well balanced diet and regular dental care need not be discouraged. For additional information, write to the Confectionery Manufacturers Association of Canada.

REFERENCES:

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Confectionery Manufacturers Association of Canada



Get the facts.

Please send copies of current studies on cariogenic dietary considerations.

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Signature _____

Date _____

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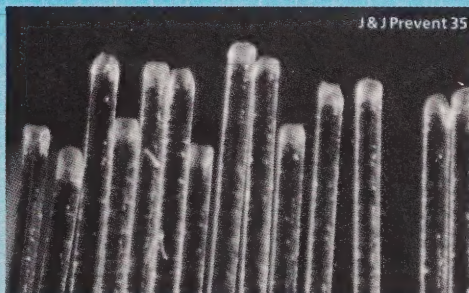
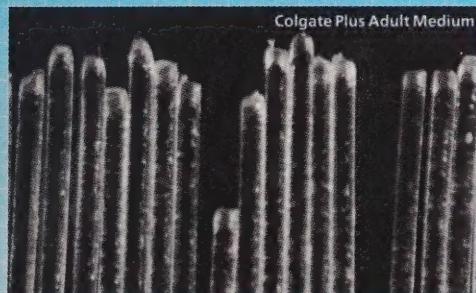
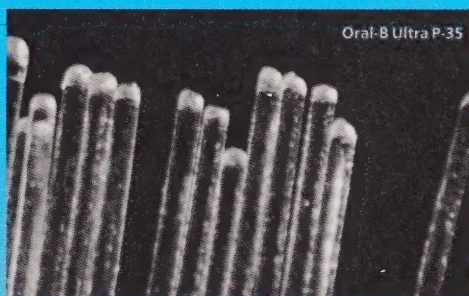
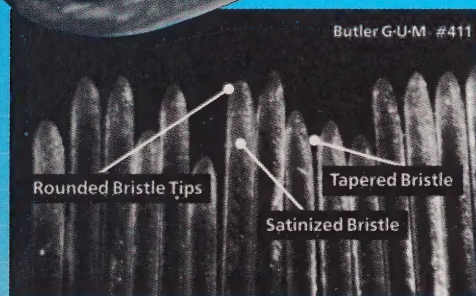
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†Dr. Harald Löe, Director, National Institute of Dental Research — Principles of aetiology and pathogenesis governing the treatment of periodontal disease.

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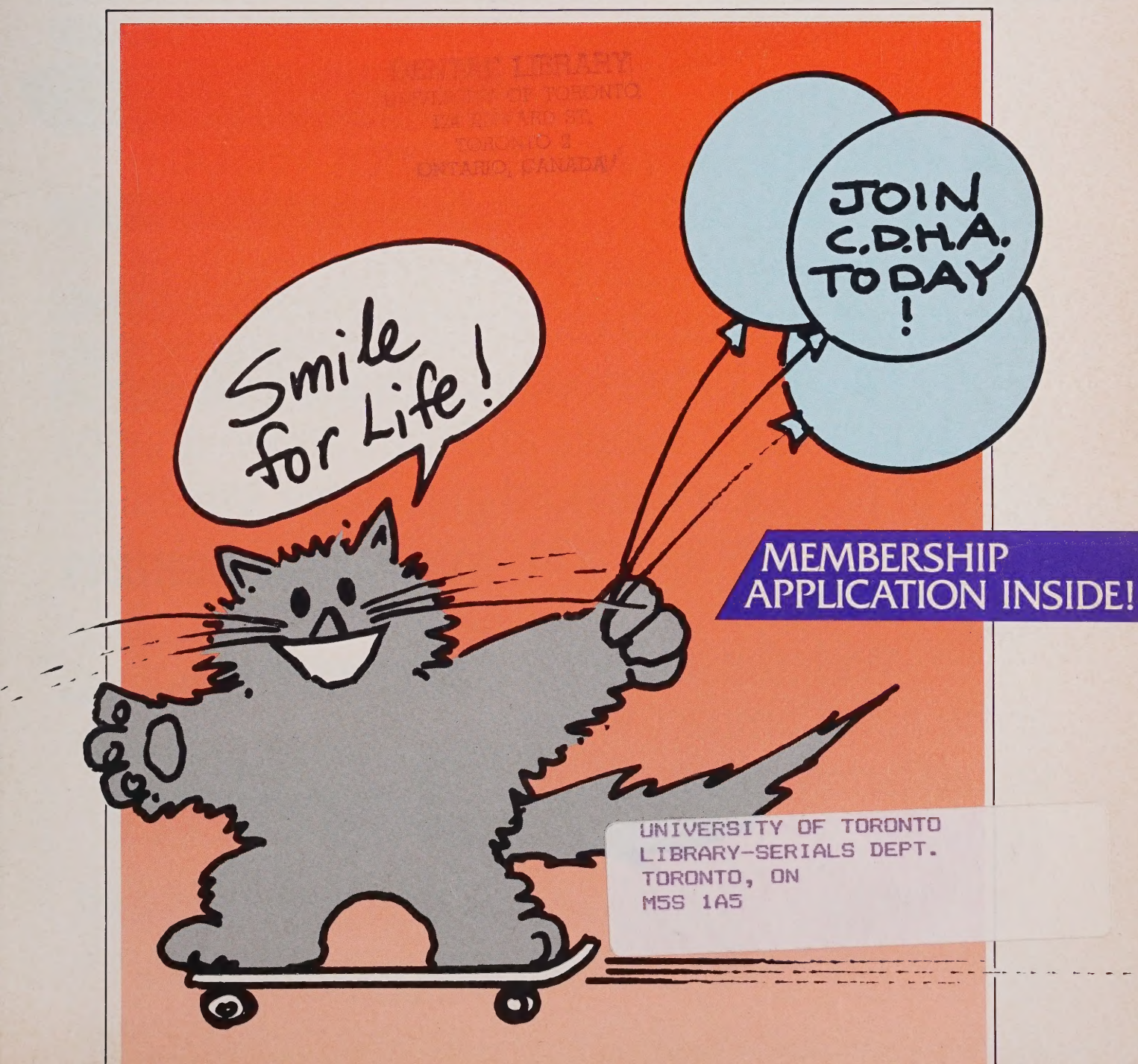


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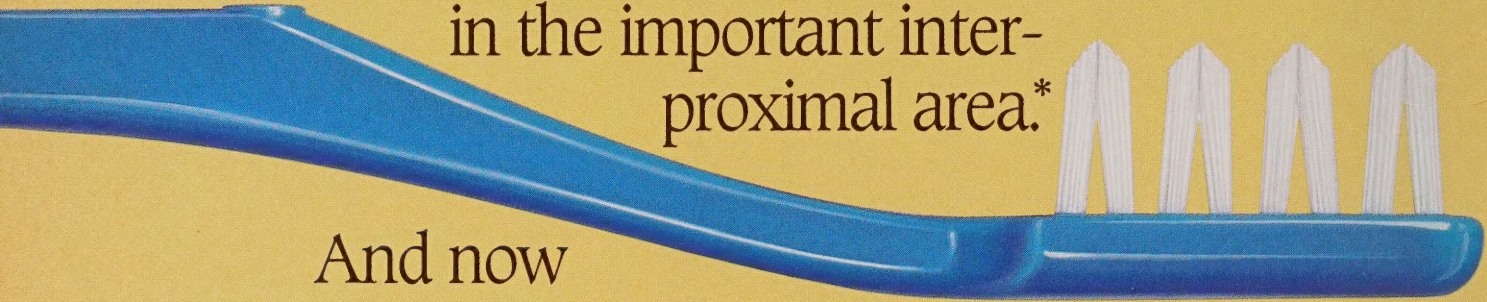
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September 1988 septembre



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* "Evaluating cleaning efficiency of different toothbrush designs and textures". Sam L. Yankell et al., University of Pennsylvania, J. Soc. Cosmet. Chem. (May/June, 1983)
"Access to interproximal tooth surfaces by different bristle designs and stiffness of toothbrushes." Per Nygaard-Ostby et al., Jordan, Oslo, Scand. J. Dent. Res. 1979.

"An in vitro study of the relative effectiveness of toothbrush cleaning/coverage." Sam. L. Yankell, University of Pennsylvania, J. Dent. Res. 1979.
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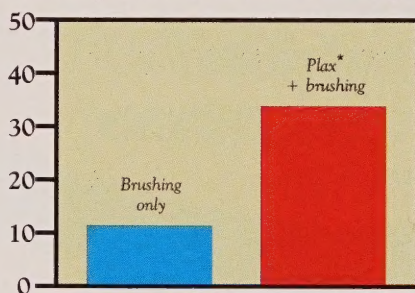


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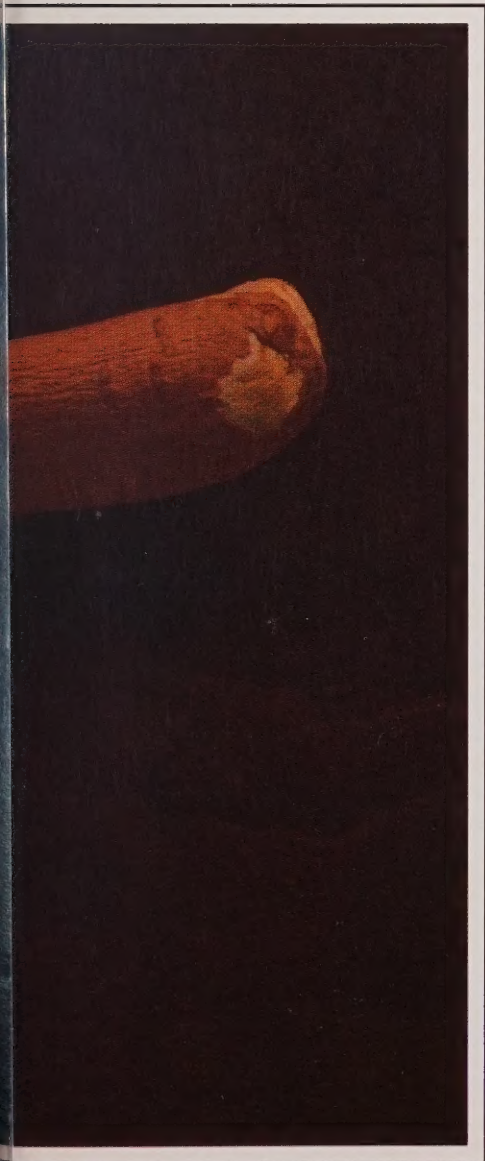
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PRESIDENT'S MESSAGE

Welcome to a new year in organized dental hygiene. It is with pride and a sense of great challenge that I take the office of president of C.D.H.A. Past years have had memorable highlights but as we enter the 25th year of our fine organization I feel an undercurrent of excitement. Growth brings change or organizations wither and die. C.D.H.A. must not be an exception. The 25th year will be a turning point in our development. There are many issues which must be addressed this year and many decisions will be made by your elected representatives on your behalf. If we as hygienists do not make these decisions and give focus and direction to our growth these decisions will be made by external forces. We will be left in a position of being carried by the waves of change rather than shaping change in the most positive fashion for our profession.

Hygienists as human beings often succumb to the weakness of letting others do things for us. This continues until we finally take scope of the situation and realize that events have developed in a way which we are unhappy with. In order to prevent this happening in our profession we need the commitment of each and every member.

Commitment can be expressed in many ways. First we need every hygienist in Canada as a member of C.D.H.A. This enables us to face national issues truly representative of our profession as a whole and provides us with a stronger voice in discussions with external organizations. Inherent in this membership is your financial support of the C.D.H.A. A national organization can not function to its full effectiveness without an adequate funding base. On an individual level yearly dues represent the commitment of approximately one days' salary for a practicing hygienist. This seems a minor price to pay for control over our future destiny.

We are fortunate in having many dedicated individuals who give wholeheartedly of their time and energy on our behalf. We can no longer continue being content to have the majority of hygienists remain passively on the sideline while these few struggle to maintain the viability of our profession. Our long term growth depends on the involvement of more hygienists in all levels of organized dental hygiene. At the very least your leadership needs strong feedback of your opinions on major issues facing us in the coming years.

This year a major focus for the C.D.H.A. will be our first ever National Dental Hygiene Campaign which runs from October 16-23. The objective of the campaign is to increase the profile of the dental hygienist as an educator in oral health. Our slogan is "Smile...for Life". This campaign will offer an avenue for every hygienist to participate in a meaningful way towards enhancing the profile of dental hygiene as a profession which truly cares about the health of all Canadians.

In this issue of the *Journal* we are asking for your support in our annual membership drive. For so many good reasons we need your participation and ask for your prompt response. As well, in your contacts with other hygienists please advocate the importance of a healthy C.D.H.A. in the continuation of our personal and professional advances.

I again call on you to carry a personal theme of commitment to the further development of dental hygiene as a great vocation in life. ■

Ellen Williams, R.D.H., B.A.

SCIENTIFIC EDITOR

THIS IS A VOLUNTEER POSITION

C.D.H.A. is seeking a Scientific Editor - someone who is willing to make a commitment to publishing scientific articles relevant, but not limited to dental hygiene in private and public health practice.

JOB DESCRIPTION:

The successful candidate is one who has the ability to organize qualified reviewers & assess their recommendations related to the articles.

The successful candidate will be a member in good standing of C.D.H.A. and in touch with the research and academic communities. Duties will include soliciting scientific articles for publication, distributing them for review, and submitting approved articles.

The successful candidate will work with the Managing Editor to secure material for the "Abstracts", "Alternatives" and "Self-Assessment" departments of the *Journal*. Additionally, he/she will answer letters to the Scientific Editor and write for the "Opinions" department.

QUALIFICATIONS:

- Knowledge of research and professional publication.
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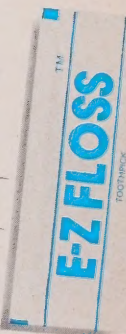
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Fran Cotton
Editor



Highlights of the C.D.H.A. Board of Directors Meeting Ottawa, June 9-12, 1988

**Thursday, June 9th,
Evening**

- President's Reception, Doral House

Friday, June 10th

- Pre-Board Workshop
- Radisson Hotel

Audrey Newcombe, Public Relations Officer and Eleanor Brownridge, HB&B Associates, described plans for the National Dental Hygiene campaign which is being funded by F. W. Horner Inc. This is to be an annual event culminating in Dental Hygiene Week.

Strategic Planning - members reaffirmed the mission statement adopted at the 1987 Board Meeting and discussed a proactive stance to ensure that hygienists determine their own future by prioritizing goals



(l-r) D. Daniels, Corporate Relations; J. Orchard, C.D.H.A. Director; M. Forgay, Quality Assurance Chair; T. Mitchell, C.D.H.A. Director

and objectives for the upcoming years. Small groups were asked to identify what they would like C.D.H.A. to accomplish in the next three years. The results of this portion of the workshop were submitted to the Task Force on Future Dental Hygiene Practice and Education (1988-89).

Henry King (First Vice-President) presented an overview of a comprehensive insurance package that C.D.H.A. is investigating as a membership benefit. This will be optional. The committee will finalize

this benefit package in the Fall. See the membership section for details.

Pat Johnson enthusiastically outlined the preliminary results of the Canadian Dental Hygienist Study. The response rate for the census (short form) was 89% and for the probability sample (long form) was 86%. A series of articles will be printed in the *Journal*. (Part 1 is in this issue.)

Saturday, June 11th

- Board Meeting - Radisson Hotel

Barb Williamson, President of the American Dental Hygienists' Association brought greetings to the C.D.H.A. Board of Directors and invited our members to become associate members of A.D.H.A.

Maxine Borowko, President of the Saskatchewan Dental Therapists Association brought greetings and outlined the problems faced by dental therapists since the Saskatchewan government terminated the school based dental plan.

Several awards were presented by the Board of Directors.

A. Ron Berry received the Certificate of Appreciation



C.D.H.A. Board of Directors Luncheon

- B. Sheryl Feller received the Distinguished Service Award
- C. Lucie Billette received the Distinguished Service Award
- D. Brian Henderson was presented with an Honorary Membership in C.D.H.A.
- E. Carol Worobey was awarded Life Membership

Student membership has been extended to any dental hygienist who has returned to school full-time for further studies in any discipline.

The C.D.H.A. accepted and supported the Human Rights Statement of the International Dental Hygienists'

Federation as adopted in Oslo, Norway on June 27, 1986.

Since national portability and a certification process are priorities of C.D.H.A., a special committee will be established to address the issue.

As a public relations strategy, the membership will receive two newsletters per year, covering news items and controversial subjects. This will increase membership contact and provide a forum for pertinent dialogue.



*C.D.H.A. 1987/88 Executive Council (l-r)
S. Arason, D. Gallagher, E. Brownstone, H. King, E. Williams*

A Task Force on Future Dental Hygiene Practice and Education (1988-89) will be established to develop a conceptual and practical plan for beyond 1990. Recommendations from the Federal Working Group in the Report on the Practice of Dental Hygiene (1986) will be used as a resource.

The Board endorsed the Dental Hygiene Competency Profile that will be used by the Council on Education and Accreditation in the accreditation of dental hygiene education programs. The Profile will provide a specific basis for the objectives of a dental hygiene program and a foundation upon which program curriculum and clinical education arrangements can be constructed.

There will be five issues of the *Journal* in 1989, to encompass a special issue on the proceedings of the International Symposium.



*D. Daniels, J. Williams, C. Wooley, D. Tivy,
K. Girard*

Sunday, June 12th

- Board Meeting continued

Dr. Jack Niedermyer, President-Elect, brought greetings from the C.D.A.

Janice Forsythe, Executive Secretary, brought greetings from the C.F.D.E. and answered questions regarding research scholarships for non-university programs.

Reports from the provinces and the armed forces highlighted their activities and outlined regional frustrations that apparently are national in scope. The pursuit of self-regulation was a constant concern.

B.C.D.H.A. presented C.D.H.A. with a sign bearing the C.D.H.A. red/purple logo for the new central office. The Board and central office staff expressed their appreciation.

Considerable discussion centered around the need for Strategic Planning and who should be charged with the responsibility. Executive Council will investigate strategic planning and report at the 1989 Pre-Board Session.

Pat Johnson, I.D.H.F. Vice-President, brought greetings and encouraged communication between the C.D.H.A. Board and I.D.H.F. Board. To facilitate this interaction, the two board meetings will run concurrently in Ottawa in 1989 with each Board attending part of the others meetings.



(l-r) M. Borowko, Sask. Dental Therapists' Assoc. President,
E. Brownstone, C.D.H.A. President 1987-88
B. Williamson, American Dental Hygienists' Association President

The 1987-88 Executive was thanked by incoming President Ellen Williams and the gavel was officially passed.

The 1989 Board meeting will be June 24-27 with the Pre-Symposium Workshops on June 28th. The International Symposium is June 29 to July 1, 1989.

*Congratulations to incoming President
Ellen Williams*



Overview

The hygienists who attended this crucial meeting all demonstrated a deep commitment to the future of our profession. These are hygienists with a vision! As we approach the end of this decade, plans are being formulated to ensure that hygiene attains professional status.

The Executive, Directors and Committee Chairs have been charged with sustaining and enhancing dental hygiene over the coming year. The 1987-88 Executive has laid a solid foundation that will continue until the following meeting. As our national profile increases, so is our international presence. The Board Meeting prior to the symposium will give all Canadian hygienists an opportunity to experience both national and international issues.

Be there! ■

Thank you, "Mother Goose", for writing the article, "Not a Fairy Tale", in the last issue of PROBE. Never have I read an article that has caused me to experience such relief and bitterness all at once. You see, I could very well be the "Little Red Riding Hood" you wrote about. I will never forget those 7 months. I experienced a loss of self-confidence, unnecessary embarrassment, financial strain, disillusionment of my profession, but most of all, shattering pain and disappointment to me, as well as, my family. As much of an ordeal as it was, the "Big Bad Wolf" may have temporarily held back my goal to be a dental hygienist, but, I didn't and wouldn't let them take it away from me!

Thank you again for publishing the article. It has helped to relieve some of the bitterness and resentment knowing that I am not alone.

Sincerely,
"Little Red Riding Hood #2"
A proud "REGISTERED" Dental Hygienist

Letter to the Editor

*Originally appeared in:
Nova Scotia Dentist, Vol. 3, No. 7,
June 1988*

The Dalhousie Faculty of Dentistry is considering the development of a Bachelor of Dental Hygiene program. This is well known in the practicing dental community and has raised a significant amount of controversy. I believe it is important to address the issues directly.

The Faculty has approved this program in principle. Details of the curriculum must be approved by the Faculty and the University Senate. If these two bodies approve the program, the proposal will be sent to the Maritime Provinces Higher Education Commission for consideration for funding.

The intent of the baccalaureate program, which is clearly stated in the proposal, is to educate dental hygienists for dental public health

programs and/or to teach in dental auxiliary schools. As an educator, I applaud the efforts of the School of Dental Hygiene. The two year dental hygiene diploma program is a clinically oriented program which prepares graduates to deliver dental hygiene services in the dental office. The additional year, following the diploma program and leading to a Bachelor of Dental Hygiene Degree is not designed to provide additional clinical skills, but rather is designed to prepare graduates for public health and education careers. It is anticipated that only those diploma holders who are interested in such careers will continue on for the Bachelor of Dental Hygiene Degree. These career routes are currently open to dental hygiene graduates, but few opportunities exist for hygienists to obtain the proper education for these careers. The Bachelor of Dental Hygiene program will provide this training. Provincial Dental Public Health Officials have expressed the need for dental public health hygiene education and the C.D.A. Council on Education and Accreditation has expressed the preference that dental auxiliary educators should have advanced education training beyond the diploma level.

Some members of the dental profession have stated that they believe the Bachelor of Dental Hygiene program is one more step toward independent hygiene practice. I must go on record as stating that I do not believe that there should be independent dental hygiene practice or that the Bachelor of Dental Hygiene Degree can be construed as a qualification for independent practice. Professor Forgay, the Director of Dalhousie's School of Dental Hygiene, has also gone on public record as not being in support of independent hygiene practice.

I believe it is extremely important for both the dentist and the dental hygienist to work in a spirit of cooperation for the betterment of both dentistry and dental hygiene. The adversarial positions taken by some individuals within both

dentistry and dental hygiene will only serve to weaken our groups from within. I would submit that there are so many significant external pressures on the oral health care system today that we cannot afford serious internal dissensions. We must rather expand our efforts in cooperatively addressing these external pressures which could seriously compromise the effective oral health care system which has been developed in Canada.

K. Zakariasen, BA, DDS, PhD
Dean, Dalhousie Dental School

Dates to Remember

1988

October
16-22

■ National Dental Hygiene Week
Canada and
U.S.A.

1989

June 7-14

■ American Dental Hygienists' Association
Annual Session
Boston, Mass.
U.S.A.

June 24-25

■ Canadian Dental Hygienists' Association
Board of Directors Meeting,
Ottawa, Ontario

June 28-
July 1

■ 11th International Symposium on Dental Hygiene
Ottawa, Ontario

Awards of Distinction

At the recent Board of Directors meeting in June 1988, several individuals were honoured for their longstanding contributions to the profession of Dental Hygiene. Congratulations to Carol Worobey, Life Member and Brian Henderson, Honourary Member. Congratulations and appreciation were also extended to Sheryl Feller and Lucie Billette, who received Distinguished Service Awards.

At this time, we would like to acknowledge and honour the Life and Honourary members of the C.D.H.A.

Marjorie Dimitri
Life Member
Vancouver, B.C.

Margery Forgay
Life Member
Halifax, N.S.

Willa Jo Gardner
Life Member
Madeira Park, B.C.

Patricia Johnson
Life Member
Willowdale, Ontario

Stephanie Nagle
Life Member
Windsor, Ontario

Kate MacDonald
Life Member
Halifax, N.S.

Joanne Clovis
Life Member
Edmonton, Alberta

Margaret Miller
Life Member
Winnipeg, Man.

Ailsa Wood
Life Member
Toronto, Ontario

Sharon Amer
Life Member
Nepean, Ont.

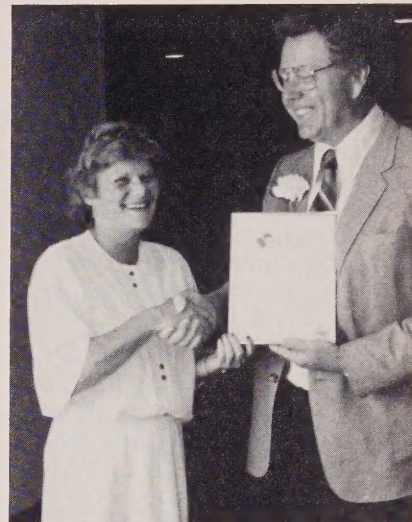
Dr. Marjorie Jackson
Honourary Member
Toronto, Ontario



Life Membership

Carol Worobey has worked in dental hygiene for the past twenty years after graduating from the University of Manitoba. Carol worked in private practise, in public health, and dental assisting education at Kelsey Institute in Saskatoon and in Winnipeg at Red River Community College and Tec-Voc School. Since 1983, Carol has focussed her skills on the position of Executive Director of the Canadian Dental Hygienists' Association.

Carol Worobey has consistently served the profession of dental hygiene through volunteer commitments. A C.D.H.A. member since graduation, she has held executive positions in both the provincial and national associations. In 1973, Carol became President of the Saskatchewan Dental Hygienists' Association. Four years later, after serving on CDHA executive council she contributed her talents to the Presidency of the CDHA.



Honourary Membership

Brian Henderson, B.A. (Hons.), M.Ed. has worked in the field of education and health care since 1960. After several years as a high school teacher, he joined Algonquin College in 1968 and in 1973 became the first Dean of the Health Sciences Faculty in Ottawa, where the first college-based educational program for dental hygienists was established in 1973. He was appointed Coordinator, Allied Health, Canadian Medical Association in 1978 and became Director of Accreditation for the Canadian Dental Association in 1984.

Mr. Henderson has been a member of the Board of the Ottawa General Hospital and the Centre Hospitalier Elizabeth Bruyere, as well as of the Ottawa-Carleton District Health Council. He is currently Chairman of the Canadian Standards Association Steering Committee on Health Care Technology and Vice Chairman of the Board of Governors of the Toronto Institute of Medical Technology.

Brian Henderson has demonstrated a spirit of co-operation and support for dental hygiene, particularly on educational matters, for example, the establishment of the Competency Profile, the significant improvement of the accreditation process as it relates to dental hygiene and the proposed Council on Certification.

Workshop held for hygienists

As an activity to coincide with the observance of April as Dental Health Month, the Moncton component of the New Brunswick Dental Hygienists Association hosted a visit of Dianne Gallagher, the immediate past president of the Canadian Dental Hygienists' Association.

Her program consisted of a mini-workshop on updating goals and objectives for the New Brunswick organization.

Accompanying her was Marnie Forgay, director of the School of Dental Hygiene at Dalhousie University. The latter reviewed the many changes occurring in the Halifax facility and promoted the upcoming 25th anniversary celebrations of the first dental hygiene graduating class at Dalhousie.

NBDHA members attended from Saint John, Sussex, Newcastle, Sackville and Moncton.

*Reprinted from
The Times - Transcript, April 20,
1988*

Dental Hygienists' Association Installs Officers

SEATTLE - The American Dental Hygienists' Association (ADHA) installed newly-elected officers at its recent Annual Session in Seattle, Washington.

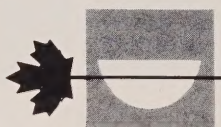
The American Dental Hygienists' Association represents the professional interests of over 45,000 dental hygienists throughout the United States. The association was founded in 1923 and has 27,000 active members.

Barb Williamson, RDH, will serve as president of the organization for the coming year. Williamson, a Rapid City, South Dakota resident, has worked with Dr. Patrick J. Coyne since 1981. She has been a private practice dental hygienist since 1965.

President-Elect Mary Alice Gaston, RDH, of Memphis, Tennessee, is Associate Professor and Educational

Director, Department of Dental Hygiene, University of Tennessee in Memphis. She was previously ADHA First Vice President for one year and currently serves on several ADHA councils and committees.

The Canadian Armed Forces are in need of graduate dental hygienists. For further information please check in the yellow pages under Recruiting or contact your local Canada Manpower Centre.



Congregate in '88 CDHA National Convention

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We gratefully acknowledge our sponsors for their interest and support.

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AIR CANADA

Attention: University of Manitoba Graduates

University of Manitoba, School of Dental Hygiene is planning their 25th Anniversary Celebration. Keep these dates open and join the celebration: June 21-24, 1990.

Clinical Standards Report

This report was distributed to all dental hygienists in Canada. If you did not receive a copy or you would like to request additional copies, they are available free of charge from:

Health Services Directorate
Dept. of Health and Welfare
Ottawa, Ontario
K1A 1B4

An International Conference on Blood-borne Infections in the Workplace will be held in Stockholm, Sweden August 28-30, 1989. To receive the first announcement or other information, please contact Ms. Catharina Öström, Congrex AB, P.O. Box 5619, S-114 86 Stockholm, Sweden.

MISSION STATEMENT

The mission of CDHA is to maintain the honour and interests of the Dental Hygiene profession, to cultivate, promote and sustain the art and science of Dental Hygiene, and to contribute toward the improvement of the health of the public.

CFDE Elects New Chairman

Dr. Ted Ramage, of Vancouver, British Columbia, takes on the position of Chairman of the Canadian Fund for Dental Education (CFDE) as of October 1, 1988.

Dr. Ramage has sat on the Fund's Board of Trustees for three years now, bringing to the Board a wealth of experience in organized dentistry. Among his accomplishments to date, Dr. Ramage has served as President of the College of Dental Surgeons of British Columbia and as a member of both the CDA Board of Governors and Executive Council. His dedication to the progress of organized dentistry is exemplary.

Although Dr. Ramage admits he will find it difficult to follow in the footsteps of Dr. J. Fred Reid, former Chairman of the CFDE Board, he is committed to the Fund's various campaigns for 1988-89 and to improving CFDE's financial picture.

Although CFDE does not do a direct mail campaign to auxiliaries, it supports programs for hygienists and assistants who may not be aware of what the Fund is doing for them. An Annual Report and Audited Financial Statements are available upon request, as well as information on our In Memoriam and Tribute programs.

One of CFDE's more innovative campaigns will be held again this year - that is, the lottery for an all expenses paid trip for two to the FDI meeting in Amsterdam in 1989. This trip has been generously donated by Conference Travel of Toronto. Tickets may be obtained through CFDE Trustees or the central office.

Even through these extensive methods, it is difficult for CFDE to raise the funds needed for the many worthwhile projects presented to the Fund each year.

CFDE needs your help. With the sole goal of promoting good dental health in Canada, surely this has to be considered *your* Fund, too. If you have read this far, you're interested.

Please forward your contribution to CFDE today, or phone us at (613) 731-0493 and charge your donation

to your Visa account. All donations are tax deductible and gifts of \$50.00 or more are formally acknowledged in the Fund's Honour Roll.

Count yourself among the members of the dental team who are dedicated to the future of dentistry in Canada and donate today!

For further information contact:

Ms. Janice Forsythe
Executive Secretary
Canadian Fund for Dental Education
Suite 105
1815 Alta Vista Drive
Ottawa, Ontario
K1G 3Y6
(613) 731-0493



Canadian Student Wins U.S. Table Clinic Award

Melinda Ferguson, a 2nd year dental hygiene student at Dalhousie University's School of Dental Hygiene, won first prize at the Student American Dental Hygienists' Association meeting in Boston, Mass. April 8-10, 1988.

Two Dalhousie senior dental hygiene students and one faculty member attended the meeting, the first to which Canadian students have been invited. The topic of Melinda's table clinic entitled "It's All a Matter of Time" was research findings concerning one-minute fluoride applications. Melinda is a native of Antigonish, Nova Scotia, and will be returning there to practice after graduation.

Infection Control Self-Teaching Booklet

Johnson and Johnson has developed a booklet outlining infection control procedures. Our thanks to Johnson and Johnson for donating 500 booklets for distribution to all student members. In addition, these booklets are available to all members at cost. If you are interested in receiving this booklet please remit \$5.00 to:

CDHA
1018 Merivale Road
Suite 201
Ottawa, Ontario
K1Z 6A5

IN APPRECIATION:

To Frank W. Horner for their continuing outstanding support of National Dental Hygiene Week and their sponsorship of the President's Reception at the June, 1988 Board Meeting.

A.D.H.A. Membership

As a result of the CDHA/ADHA Liaison meeting in Chicago (February, 1988) the American Dental Hygienists' Association has created an associate membership classification for CDHA members. ADHA associate membership entitles you to:

- Dental Hygiene Journal
- Access Newsletter
- Member registration fees at ADHA conventions

Cost to CDHA members is \$62.50 U.S. funds and is available by writing Membership Services, American Dental Hygienists' Association, 444 North Michigan Avenue, Suite 3400, Chicago, Illinois 60611. Phone: (312) 440-8900

MEMBERSHIP

A Message from Signe Arason, C.D.H.A. Membership Chair

As the profile of Dental Hygiene rises in the public eye, it is essential that the individual Dental Hygienist be aware of the issues facing the profession.

Practice standards, scientific advancements, changing trends in dental disease and treatment of disease, employment opportunities, education, continuing education and legislative activities are all very important aspects of the Dental Hygiene Profession.

We must accept the responsibility of keeping informed on these aspects as they will impact each individual Dental Hygienist, either immediately or in the future.

Membership with CDHA reflects an attitude of recognition to that responsibility.



CDHA is committed to ensuring that all areas affecting Dental Hygiene practice are monitored and/or guided progressively and competently.

The year 1988 will mark the 1st National Dental Hygiene Campaign in Canada. It is an exciting event and we should all be tuned into what is planned for marketing our profession to the public. As a CDHA member you are informed and invited to participate in this project and other activities through our Journal "PROBE", and our new publication "THE EXPLORER", a newsletter.

A great new benefit that will be available to active members of CDHA only is a self determined insurance package. Our Insurance Committee has been working hard on negotiating a complete package to suit the special needs of the Dental Hygiene community. Included is malpractice insurance which is protection all Dental Hygienists are advised to hold.

As you look at your role as a Dental Hygienist providing essential health care, consider your professional obligation and increasing demand of the public to "KEEP FIT PROFESSIONALLY". ■

Keep Fit Professionally!

Join your professional associations! Send in your membership application today so that you can participate in the future of Dental Hygiene in Canada by keeping informed. The most valuable asset which you will receive is the access to information from the national association, provincial association and your local component association.

Member Services

- A complete benefits package including insurance and RSP programs
- Member information services re: placement, portability, dental hygiene trends
- Member liaison services re: government, international dental hygiene bodies
- Special Interest dental hygiene groups

Public Relations

- Host of 11th International Symposium, National Dental Hygiene Week
- Representation to National and Provincial Government on matters of professional concern
- Liaison with other dental professionals
- Liaison with organized Dental Hygiene on an International Level

Education

- Annual Scientific Session/National Convention
- Provincial Scientific Sessions and Conventions
- Regional Development Seminars
- Continuing Education Courses
- C.D.H.A. Research Fellowship
- Workshops
- C.F.D.E. Funded Projects
- C.D.H.A. Sponsored National Dental Hygiene Survey
- Access to A.D.H.A. conventions through A.D.H.A. associate membership

Publications Available to Members:

- Quarterly Scientific Journal "Probe"
- Special issue of Probe, Summer 1989, 11th International Symposium
- Bi-annual national newsletter
- Provincial newsletters
- Local society publications
- Current literature:
 - Careers in Dental Hygiene
 - Portability, Placement, Practice/Licensure
 - Facts about Dental Hygienists
 - An Introduction to CDHA
 - Smile for Life - Guide for Older Adults
 - Consumer Brochure - Oral Hygiene
 - Asepsis Learning Guide
 - Provincial Association pamphlets and literature
 - Report - Working Group on Dental Hygiene
 - Report - Practice Standards
- A.D.H.A. **Dental Hygiene and Access** (A.D.H.A. associate membership)

Membership Draw

Send in your membership application and celebrate National Dental Hygiene Week. All applications received before the end of National Dental Hygiene Week, October 22nd, will be eligible for two Free Membership Draws. If your name is selected you will receive a refund for the C.D.H.A. portion of your membership fee. Mail your application today.

Keep Fit Professionally:

Mail the enclosed membership application in the enclosed postage paid envelope. Please note that the application has been reproduced in the magazine for your convenience. Our new address:

C.D.H.A.
1018 Merivale Road
Suite 201
Ottawa, Ontario
K1Z 6A5

It would be appreciated if you would include the mailing label from the front of the Journal, with your name and address. This will help us process your membership as quickly as possible. You will then receive your membership card and a tax-deductible receipt for your membership fees.

Membership Classifications

A. Active. Active membership may be granted to any person who is legally eligible to practice dental hygiene in any of the provinces of Canada and who will support and promote the objectives of the association.

B. Life. Life membership may be granted to an active member who has made an outstanding contribution to dental hygiene and to this association. Such individuals shall be approved by the board of directors.

C. Student. Student membership may be granted to any student enrolled full time in a dental hygiene program, or to a graduate

dental hygienist who is enrolled full time in either a college or university program, and who will support and promote the objectives of the association.

D. Associate. Associate membership may be granted to a dental hygienist who resides in Northwest Territories, Yukon Territories or outside of Canada, and who will support and promote the objectives of the association.

If you wish to maintain or apply for Provincial ASSOCIATE MEMBERSHIP in another province of non-residency, please indicate the province on the application form. Send the additional appropriate fees along with the form and ACTIVE MEMBERSHIP fees. The province will be notified and receive your payment.

E. Honorary. Honorary membership may be conferred upon individuals who are not dental hygienists but who have substantially contributed to the profession of dental hygiene. Such individuals shall be approved by the board of directors.

F. Support membership may be granted to individuals who are not dental hygienists, or dental hygienists who are not working as dental hygienists for the membership year, who support and promote the objectives of the Association.

FEE SCHEDULE

Province	Active	Support	Student
Alberta	135.00	40.00	40.00
British Columbia	130.00	40.00	30.00
Manitoba	100.00	29.00	27.00
New Brunswick	95.00	30.00	25.00
Newfoundland	95.00	30.00	25.00
Nova Scotia	125.00	25.00	25.00
Ontario	160.00	55.00	50.00
Prince Edward Island	95.00	25.00	25.00
Saskatchewan	*	45.00	40.00
CDHA (Quebec residents)	75.00	25.00	25.00

**Saskatchewan Active Members submit their fee of \$135.00 with their provincial licence fee in January.*

Support membership is not available to dental hygienists who fall into any other membership category. Support members may not serve as Directors, Committee Chairpersons, representatives or appointive officers of the Association.

Associate Membership in C.D.H.A.:

Associate membership is available if you reside outside Canada or in the Yukon or Northwest Territories. The fee for C.D.H.A. is \$25.00. You may also join the provincial association of your choice.

Associate Membership in Provincial Associations:

Associate membership allows out of province residents the opportunity to support a provincial association. To join a provincial association as an associate member, you must first be an active member in your province of residence. Please indicate on your membership the province and add the additional fee.

Province	Associate Fee
Alberta	\$15.00
B.C.	\$15.00
Manitoba	\$4.00
N.B.	\$5.00
Nfld.	\$5.00
Ontario	\$30.00
Saskatchewan	\$20.00
P.E.I.	0
N.S.	\$30.00

An improved benefit plan to meet the needs of a larger, rapidly growing and more demanding membership

The Benefits Committee, working through the Membership Committee and the Board of Directors, commenced an indepth review of the Association's benefit programmes in the fall of 1987. This review culminated in a commitment to improve existing benefits and include Life, Disability, Health, Homeowners, Tenants, and Automobile insurance as well as Malpractice insurance and RRSP benefits.

The Association's objective was to provide for members a level and quality of coverage that would not normally be available to individuals. To help achieve these objectives the Association appointed a firm of insurance specialists and consulting actuaries to work with the Benefits Committee and the insurance industry to develop a programme which would respond to the unique needs of dental hygienists.

A general overview of our Benefits Package is presented in this issue of Probe. This program is available to members of the association. The Benefits Committee is currently finalizing an information package that will detail the types of coverage and the application procedure. Please fill out the reverse side of the membership application to insure that you receive the information you need.

Due to the high level of interest expressed by our members, malpractice insurance is being offered immediately. The malpractice insurance policy is held by the association as a group insurance policy. Your participation in professional liability insurance held **by dental hygienists for dental hygienists** is encouraged. This preventive measure assures that a conflict of interest situation will not arise from any litigation. This policy protects you for up to one million dollars per claim, not to exceed two million dollars per person and is

valid for all claims made during the period you hold your malpractice insurance. A premium of only \$20.00 is payable at the time of your membership renewal. **Your participation is needed to insure the success of this program.**

C.D.H.A.
Benefits Committee

Benefit Enhancements Malpractice Insurance

A comprehensive malpractice insurance held by dental hygienists for dental hygienists is badly needed. Recognizing the growing membership, the rapidly increasing number of dental hygienists practicing even a few hours a week, and the expanding number of patients served, it was deemed appropriate to offer a policy to dental hygienists that was held by the Association for the benefit of participating members. The growing sense of professionalism within the dental hygiene confirms the need to have a policy available to members through their own Association. Malpractice coverage for dental hygienists through the Association replaces the need for a dental hygienist to trust in the coverage of an employer. It was felt that the present need to trust in an employer's coverage to pay defence costs and a possible claim arising out of the practice of dental hygiene could lead to a potential conflict of interest and detract from the sense of professionalism.

Through extensive negotiation with the insurance industry, a policy, to be held by the Association for the benefit of participating members has been negotiated with Encon Underwriting Managers representing a consortium of 4 insurers including the Royal Insurance Company, the Prudential, Commercial Union and Simcoe and Erie. The policy provides protection to any participating member for any claim up to and including \$1,000,000. In the event a member incurs more than one claim the policy will pay as much as \$2,000,000. Payment from the policy is for both legal defence costs and settlement of the award. This

coverage can be purchased through the Association at the same time as purchasing membership in the Association, at a cost of \$20.00 per member per year. The coverage will commence on January 1, 1989, provided your premium cheque for malpractice insurance is enclosed with your membership fees. It will extend to December 31st in each calendar year. When you renew your 88/89 membership in the Canadian Dental Hygiene Association you will be covered for malpractice insurance to December 31, 1989, provided you remit the malpractice premium of \$20.00. There will be no need to purchase additional malpractice insurance or to trust solely on the policy in effect, if any, with your present employer. To obtain this coverage refer to your Application for Membership form.

Disability Insurance

Providing income replacement in the event of disability has always been recognized as prudent, responsible, financial planning. Obtaining quality coverage that would protect the income of a dental hygienist working part-time or full-time to age 65 at a reasonable cost has always been an objective of the Association. Purchasing coverage that would pay benefits in the event of a partial disability where you're able to work at a reduced capacity has also been an important objective. Similarly, providing coverage for disabilities arising out of complications from pregnancy is an important need of our membership and is included in the improved disability benefit.

These and other enhancements have been negotiated to be included in the disability coverage to be available to members of the Association. The new improved disability programme offers varying waiting periods before benefits will be paid. Extensive coverage protecting against virtually all disabilities has been successfully negotiated with our present provider, Mutual of Omaha, and with an alternate insurer.

RRSP

Purchasing an effective RRSP means selecting not only the type of investment most appropriate for your needs but also the management

expertise to ensure that your contributions are safe and the returns attractive. Understanding the various investment options and assessing the abilities of fund managers frequently requires the expertise of trained consulting actuaries. The Association, acting for the exclusive benefit of its members, has developed an attractive RRSP programme that will provide members with options ranging from guaranteed investments, to diversified funds made up of equities, bonds, money market instruments, etc. The availability of this RRSP programme provides an enhanced level of experience and fund management not typically offered on an individual basis.

Home, Automobile, Tenant, and Other Forms of General Insurance

Significant savings are available in the general insurance area when group purchasing power is used to negotiate premiums. Your Association with more than 3,000 professional members represents to the insurance industry a significant purchasing force. The Association through Canadian Actuarial and Consulting Group has negotiated a national general insurance programme which includes home, automobile and tenant insurance package providing significant cost reductions for most cases. In addition to premium reduction, the coverage negotiated by the

Association using our purchasing power covers all risks, all perils and is generally more comprehensive than coverage provided in the normal policy.

Premiums can be paid on a monthly, quarterly or annual basis. The improved coverage at lower premiums is made possible through the enhanced purchasing power of the Association and the ability of the member of the Canadian Dental Hygiene Association to deal directly with the insurance company.

Members of the Association should request a quotation before renewing any coverage with any other carrier. To receive a quotation at the time of your next renewal, please indicate your interest now on the back of the Application for Membership form.

Life Insurance

Purchasing Life insurance cost effectively, like almost any other form of insurance, requires effective purchasing power, good negotiations with the underwriter and a constant monitoring of premium and claims data by trained professionals. Our Association, being predominantly female with relatively low average age, presents an extraordinary opportunity for members to secure significant volumes of Life insurance at extraordinarily low costs. The Association has negotiated coverage which would provide up to \$1,000,000 of Life insurance benefit for members of the Association and their spouses. These rates are the

lowest available in the industry and are available to our members with proof of membership.

Medical and Dental Benefits

Medical and Dental coverages are available on a personalized basis at group discount rates through the Association. Coverage available is extensive. The exact level of coverage can be determined on an individual basis and rates vary in accordance with province of residence.

Why a Member Should Purchase Their Insurance Coverage Through the Association

Purchasing any form of insurance or retirement benefit requires professional expertise. This professional expertise is available to you on an individual basis through our consultants, Canadian Actuarial and Consulting Group. Our consultants are committed to providing individual advice upon request and the most attractive policies available. Most importantly, the consulting firm is committed to monitoring the performance of our policies, the services provided by insurance carriers to our members and to advising the Benefits Committee on a regular basis. A member can take considerable comfort in the assurance that their interests are well protected, and the service delivered reflects a high level of professional standards. ■

MEMBERSHIP APPLICATION

(Please see other side)

Attach mailing label here

LAST NAME _____
 FIRST NAME _____ INITIAL _____
 MAIDEN NAME _____
 STREET _____ CITY _____
 PROVINCE _____ POSTAL CODE _____
 TELEPHONE (home) _____ TELEPHONE (office) _____
 COMPONENT SOCIETY _____
 SCHOOL OF GRADUATION _____ YEAR OF GRADUATION _____
 EMPLOYMENT
☐ Private Practice ☐ Education ☐ Public Health ☐ Other



Attach mailing label here

MEMBERSHIP

- ☐ ACTIVE
☐ SUPPORT
☐ STUDENT

AMOUNT \$ _____

☐ ASSOCIATE
 PROVINCE(S) _____ \$ _____
 CDHA (out of country) \$ _____
 TOTAL MEMBERSHIP
 FEES \$ _____
 MALPRACTICE INSURANCE (OPTIONAL)
 \$20.00 \$ _____

TOTAL AMOUNT ENCLOSED \$ _____

☐ CHEQUE

☐ VISA #

expiry date

Québec Membership

In the province of Québec a dental hygienist can join both the Canadian Dental Hygienists' Association and Québec Dental Hygienists' Association. Québec is a unique province in its bilingualism which is why the Québec Dental Hygienists' journal "*Le Point de Contact*" has been completely bilingual for the past year.

Lots of great activities are being planned for the 1988-89 year. On a local level, in Montréal we are planning to have several one day tableclinics in the hospitals for National Dental Hygiene week, October 16-22, 1988. If you wish to participate please call: Christine Wooley, Campaign Leader, at (514) 733-8571. For information on C.D.H.A. please contact: Christine Wooley, (514) 733-8571. For information on Q.D.H.A. please contact: Julie Royal, (514) 345-9351.

The Nova Scotia Dental Hygienists' Association

Fellow Nova Scotians, I invite you to join NSDHA. The NSDHA exists to represent the views and needs of the profession of dental hygiene and to protect the interests of its members. The NSDHA is your official voice with respect to illegal practice, re-entry to the work force, self-regulation, manpower and career development. It is self-serving. It changes with the times to meet the requirements of the dental hygienists of Nova Scotia.

This year it was necessary to increase the membership fee to \$125.00 which is due October 31, 1988. The NSDHA has not had an increase in several years. Your tax deductible fee supports the newsletter, continuing education, student gifts and bursaries, and your future as a licensed, practicing dental hygienist in Nova Scotia. Can you afford to let your profession stagnate? For without a strong association outside forces will inhibit

our growth. Please send your membership fee to CDHA and your current address to your membership chairperson. Thank you.

Kathy Ritcey
R.R. #1 Bridgewater
Lunenburg Co., NS
B4V 2V9
(H) 543-4571

Active fee \$125.00
Associate fee \$30.00
Support \$25.00
Student \$25.00

The Alberta Dental Hygienists' Association

The Alberta Dental Hygienists' Association would like to take this opportunity to invite hygienists to join and support our association. Our primary function is to *serve* our members and to assist with their professional development.

A membership in ADHA/CDHA offers the following items and more:

- scientific journals and provincial and local newsletters
- scientific sessions, monthly meetings, workshops, and an annual Continuing Education Day
- liaison with government, provincial hygienists' associations and other professional groups
- employment placement opportunities
- representation during the current pursuit of legislation regarding dental hygiene licensure, registration and regulations.

If you have any questions regarding membership, please contact me.

Michelle Schwab
ADHA Membership Chairperson
43 Edcath Rd. NW
Calgary, Alberta
T3A 4A2
239-6291

BRITISH COLUMBIA

B.C.D.H.A. is dedicated to maintaining the honour and integrity of the profession of Dental Hygiene and to promoting its advancement. We are your representative to matters pertaining to the practice of dental hygiene in B.C. A full membership reflects our dedication to dental hygiene and increases our credibility with our licencing body, the C.D.S.B.C. We are proud of the changes and advancements that have occurred due to the efforts of both B.C.D.H.A. and C.D.H.A. In order to continue, we need the support of all B.C. Dental Hygienists. Join now! Participate in your professional association.

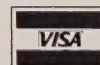
For more information contact:

Jo Gardner
P.O. Box 151
Madeira Park, B.C.
V0N 2H0
Tina Letham
Box 237
Salmon Arm, B.C.
V0E 2T0



OCTOBER
is CFDE month
Give Generously

Suite 105
1815 Alta Vista Drive
Ottawa, Ontario K1G 3Y6



Ontario Dental Hygienists' Association

O.D.H.A. is working hard to serve you, the member. We appreciate your feedback and suggestions to make your association better serve you.

Self-regulation is an exciting and historical event which will soon become a reality for Ontario dental hygienists. It is a goal sought by dental hygienists throughout North America and marks the recognition of maturity of our profession. Publications and attendance at local component meetings will keep you up to date on all matters affecting dental hygiene. JOIN US!

Margaret Walsh
O.D.H.A. Membership Chairperson
(705) 728-6974

The Manitoba Dental Hygienists' Association

Today's professional is constantly facing changing trends, ideas and legislations. The Manitoba Dental Hygienists' Association is our strongest voice in matters concerning the profession of Dental Hygiene in Manitoba. MDHA is geared towards working for our profession and is shaping the future of Dental Hygiene.

Where are we now? Our provincial newsletter, *Montage*, has achieved a new image and along with the *Probe* continues to communicate current trends and developments from a local and national perspective. Also, Continuing Education courses are held throughout the year, continuing to inform the dental hygienist of the dynamics of our profession. C.E. courses welcome all dental hygienists and will now be available at a significantly lower cost to MDHA members.

Where are we in the future? The strength of MDHA is in our members. Our future depends on your support.

Fran Cotton

ODHA Regional Directors

Algoma	Diane Greenwood 19 Shoreview Court Sault Ste. Marie, Ontario P6A 5Y6	(h) 705/759-2154 (b) 705/254-5671
Durham-Ontario	Leslie Ann Rideout 244 Union Avenue Prince Albert, Ontario L0B 1P0	(h) 416/985-8857 (b) 416/985-8451
Halton-Peel	Marlene Heics 4368 Credit Pointe Drive Mississauga, Ontario L5M 3J5	(h) 416/622-1351 (b) 416/275-8501 (w) 416/453-6900
Hamilton & District	Helen Symons 39 Ruffian Road Brantford, Ontario N3P 1S6	(h) 519/756-7980 (b) 519/759-2590
Kingston & District	Merril Jeffries 459 Days Road Kingston, Ontario K7M 3R5	(h) 613/384-5864 (b) 613/384-4224
London	Linda O'Neil 86 Tweed Crescent London, Ontario N5X 1Z4	(h) 519/451-8141 (b) 519/672-1255
Niagara Region	Susan Matheson (see EXECUTIVE COMMITTEE)	
Nipissing	Nancy Vincent 60 Labreche Drive North Bay, Ontario P1A 3P5	(h) 705/474-5287 (b) 705/752-4221
Ottawa	Elizabeth McIntosh 2-20 Melgund Avenue Ottawa, Ontario K1S 2S2	(h) 613/234-8745 (b) 613/722-2328 Ext. 3509
Peterborough	Beverly Ann Driscoll 556 Holmwood Avenue Peterborough, Ontario K9H 2N5	(h) 705/748-0988 (b) 705/876-1668
Renfrew	Gwen Ringrose R.R. #6 Renfrew, Ontario K7V 3Z9	(h) 613/432-6884 (b) 613/432-4864
Samia-Lambton	Jane Wood 66-215 Trudeau Clearwater, Ontario N7S 4T5	(h) 519/337-7373 (b) 519/344-1866 (M-Th) 519/542-6160 (F)
Simcoe County	Nancy Orschel 15 Rosegarden Crescent Richmond Hill, Ontario L4E 1V9	(h) 416/773-1680 (b) 705/325-2705 Ext. 238
Sudbury	Joan Chabot P.O. Box 496 Dowling, Ontario POM 1R0	(h) 705/855-5285 (b) 705/855-3510
Thunder Bay	Trudi Enstrom 121 Essex Court Thunder Bay, Ontario P7A 7N4	(h) 807/767-4185 (b) 807/622-0486
Toronto Central	Mary Carere 79 Wenderly Drive Toronto, Ontario M6B 2P4	(h) 416/789-1620 (b) 416/466-7777
Toronto North	Elaine Sone 62 Gustav Crescent North York, Ontario M2M 4H1	(h) 416/223-5584 (b) 416/224-1775
Waterloo-Wellington	Pat Delion 143 Rolling Meadows Kitchener, Ontario N2N 1X8	(h) 519/742-3649 (b) 519/742-8303
Windsor-Essex	Ann Duguay 168 Elm Avenue Windsor, Ontario N9A 5G8	(h) 519/252-0388
Director-at-Large	Laura Dempster 596 Foxwood Trail Pickering, Ontario L1V 4B2	(h) 416/839-6851 (b) 416/979-4459

CAREER OPTIONS



Dental Hygienists in Public Health

Holly Heard, *R.D.H.*
Jane Mays, *E.D.D.H.*
Heather Murray, *R.D.H.*

With the inauguration of the Canadian Dental Hygienists Association's first National Dental Hygiene Week, hygienists nationwide are campaigning to increase awareness of our professional role. Traditionally, this role has been one of a clinician working in private practice. There are, however, alternatives to this common setting, one of which is in the field of Public Health. The role of the Public Health hygienist is often unfamiliar, not only to the general public, but unfortunately also to our peers. This article may enlighten you and perhaps stimulate interest in this progressive field of primary prevention of dental disease and health promotion.

Hygienists will find that working in Public Health is a multi-faceted and gratifying job which can provide many unique opportunities and benefits. We work in a non-traditional setting with people of various life-stages (pre-natal to geriatric), socio-economic status, cultural heritage and demographics.

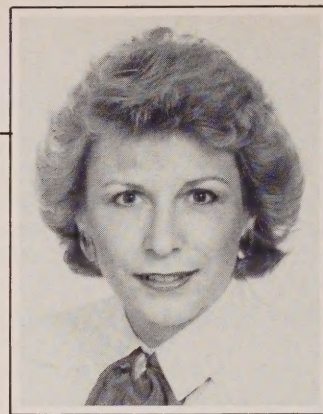
The availability of government and community programs allows everyone and especially groups with special needs access to many dental services which otherwise would not be available to them.

Examples in Ontario include: fluoride mouthrinsing, children's dental screening to determine eligibility for a government-assisted treatment program, dental health education for elementary students and community groups, oral hygiene instruction, promotion and implementation of topical fluoride programs, and the expansion of geriatric dental services.

Rewarding benefits of Public Health include the personal satisfaction of working in an environment highly committed to promoting optimum oral health within the community. The Public Health milieu offers many avenues for personal growth and professional development. These include health promotion, human resource management, research, continuing education, computerization, public speaking and public relations. This stimulating atmosphere challenges you to fulfill a potential in ways that may not be available in private practice. A variety of workplaces and the opportunity to travel offers a sense of freedom not commonly found in a fixed clinical setting. Valuable perks include benefit packages and workday flexibility.

The Public Health hygienist is an important link between the community and the dental office, since he/she identifies those in need, particularly those who are at high risk and ordinarily would have been isolated from treatment due to economics, attitudes or cultures.

Dental hygienists in Public Health have a caring concern for their community and the dental health of all Canadians. ■



Current Project: Evaluation of an Adjunctive Antibiotic in Periodontal Therapy.

Sharon M. Aitken, *Dip.D.H., B.A.*
Research Associate
Faculty of Dentistry
University of Toronto

Clinical Dental Research presents an exciting and challenging alternative for experienced Dental Hygienists. Not only does it expand the dental hygiene focus, it can also let you participate in history in the making.

Clinical research calls for many different skills, and a typical day can provide plenty of variety. From initial screening, to detailed examination for baseline data and collection of biological samples for laboratory analysis, you can expect to work with patients in all phases of the research process.

Additional skills involve the application and administration of specific test substances, maintaining patient records, monitoring progress and following-up on field experience. Computer databases also help you bring the power of the electronic age to data collection and analysis.

Previous experience, in a wide variety of areas, is not wasted in this new field. My previous background

in dental hygiene program design, education and administration, and years of private practice are drawn upon daily to interpret clinical situations, make day-to-day judgment calls and manage the project.

Flexibility is essential. Combined with an inquisitive mind it helps to modify traditional attitudes to clinical skills and dental materials and equipment. Every day brings new challenges and new solutions. New equipment design is occasionally the answer to meet a new need.

Although attention to detail is as important as ever, you can never lose sight of the large scale implications of your work. A good sense of humor combined with some sense of the absurd can also be an asset.

Although you are working within the framework of a university faculty, you are actually part of a much bigger team. From lab technicians to computer systems analysts, from microbiologists and chemists, to equipment reps and practicing dentist, you work in anything but a vacuum.

Day to day clinical research is very much a hands-on exercise, with plenty of patient contact. The very nature of the work involves building patient's trust and confidence. Procedures are often tedious and time consuming, sometimes even uncomfortable. As a researcher you will use all of your communication and people skills to encourage patients to follow the protocols and regimen set out in the parameters of the project.

In addition to new procedures in data collection and patient monitoring, research also lets you further develop your analytical and reporting skills. The academic side of the environment imposes high standards which can be both challenging and rewarding.

As an alternative to the traditional dental hygiene setting, clinical dental research provides variety and adds a new dimension to professional development. You can learn more about opportunities in this field by talking to department personnel in dental and dental hygiene schools and exploring provincial and federal grant programs. You might just be surprised by what's available. ■



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11th

**INTERNATIONAL
SYMPOSIUM ON
DENTAL HYGIENE
JUNE 28 - JULY 1, 1989
OTTAWA '89 CANADA**

You're Invited

to join us in celebrating the 11th international Symposium on Dental Hygiene!

Prior to the Symposium

Board meetings - The International Dental Hygienists' Federation & Canadian Dental Hygienists' Association Board Meetings will be held at the Radisson Hotel, 100 Kent St., Sunday, June 25th - Tuesday, June 27th. Observers are welcome.

Bus Tour - Toronto - Niagara Falls. 4 days and 3 nights for \$375.00
Saturday, June 24th - Tuesday, June 27th.

Workshops - University of Ottawa on Wednesday, June 28th. 9 a.m. - 12 p.m. &/or 1 p.m. - 4 p.m.

- | | |
|--|---|
| - Getting Started in Research | - Educators |
| - Continuing Education - You're in Charge! | - How to Write a Paper |
| - Motivation & Me | - Dental Materials - New Concepts |
| - Community Health | - Financial Planning for Women - Dollars & Sense |
| - Geriatric Dentistry | - Dental Photography (Different fee - limited registration) |

Fee: \$20.00 - \$30.00 depending on half day or full day.

11th International Symposium on Dental Hygiene - Westin Hotel

- Wednesday Evening, June 28th.

Join us for the gala ceremonies to officially open the 11th International Symposium in the Ballroom of the Westin Hotel.

- Thursday, June 29th.

9 a.m. Keynote Speaker - Dr. David E. Barmes - Chief of Oral Health
- World Health Organization

Topic - Dental Hygienists as "Health Care Providers"

Followed by - Select papers on Dental Hygiene Today presented by each of the member countries of I.D.H.F.

Lunch - 12:00-1:30 p.m.

P.M. Panel Discussion on How the Future May Affect Dental Hygiene
or 20 Free Papers - 4 running concurrently

ALL DAY - Commercial Exhibits - Marketplace (arts & crafts by
hygienists)
- Hall History - Daycare Facilities (8 a.m. -
Midnight - user fee)

This day finishes with a Food & Spirits Gala representing Canada's ten
provinces.

- Friday, June 30th.

A.M. - Issues Workshops (Choose two out of four)
or
28 Free Papers - 4 running concurrently

LUNCH - 12:00 - 1:30 with Fashion Show

P.M. - Guest Speaker (to be confirmed) sponsored by Colgate
Palmolive
or
Workshop on Planning the Future Direction of Dental
Hygiene

ALL DAY - Poster, Video & Table Clinics Sessions
- Marketplace
- Commercial Exhibits
- Daycare Facilities (8 a.m. - Midnight)

Friday Evening - Canadian Style Bar-B-Q at Vincent Massey Park

- Saturday, July 1st.

A.M. - Reporting Session on Issues Workshops
- Closing Ceremonies: Remarks from I.D.H.F. President
- Marketplace - 9 a.m. - 2 p.m.
- Daycare Facilities 8 a.m. - Noon.

Join the rest of Ottawa for Canada Day Celebrations & Fireworks!

Registration - Earlybird registration before March 31st - \$275.00
after March 31st - \$300.00

- Earlybird registrants are eligible for a draw of two Air Canada tickets to
be used in conjunction with the Symposium.

Post Symposium

Bus Tour - Historic Quebec City - Montreal - Upper Canada Village.
- 4 Days & 3 Nights for \$375.00 Sunday July 2nd - Tuesday July 5th.

Further information & registration form will appear in the next issue of
PROBE. Send in your Membership now to ensure receiving the next issue.

Dental Hygiene: Past, Present, Future

Sponsored by the International Dental Hygienists' Federation
Hosted by the Canadian Dental Hygienists' Association

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Nepean, Ontario K2H 8J1



OTTAWA '89
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JUNE 28 - JULY 1, 1989

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Control and protection
where it counts.



NATIONAL DENTAL HYGIENE WEEK

The first ever Canadian National Dental Hygiene Week will be celebrated October 16-22, 1988. At the same time our counterparts, the American Dental Hygienists' Association will be holding their National Dental Hygiene Week. That means across North America, people will be hearing about and seeing what a dental hygienist is!

To increase the profile of the dental hygienist as an educator in oral health.

Our slogan is

Smile...for Life.

This campaign will benefit

- The general public by providing information on how to improve oral health habits.
- Dental hygienists with increased profile in their community, and
- The Canadian Dental Hygienists' Association with national exposure.

This is our opportunity to show that **HYGIENISTS HELP PEOPLE**. We know that hygienists are key educators in oral health...but few consumers understand the depth of our knowledge. This will be our chance to shine in a very visible way.

As the primary provider of dental health promotion, our recognition is overdue! National Dental Hygiene Week has come about as a realization of the need to go "public". It has the full corporate support of Frank W. Horner Co. With their help, CDHA has put together an impressive package of information and resource material for use throughout National Dental Hygiene Week.



Eleanor Brownridge, Frank W. Horner representative (left) and Audrey Newcombe, C.D.H.A. Public Relations Officer unveil the National Dental Hygiene Week poster.

Get Involved!

By now you should have been contacted by your local community campaign leader and invited to participate in the planning. If you've heard nothing, call either your society president or the provincial campaign coordinator.

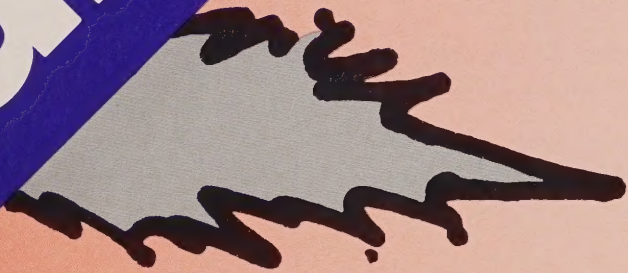
All current members of the C.D.H.A. will be receiving a National Dental Hygiene Week package which includes materials for distribution to your patients the week of October 16-22.

If you are not a member of the CDHA - Join now! A copy of Facts About Dental Hygienists has been included in this issue for reproduction purposes - Hand these out to your patients during the week of October 16-22. Don't forget to display the centerfold poster of D.H. the Cat in your office or operatory.

For Life!
Smile!



FOR LIFE!



HYGIENE

**NATIONAL
DENTAL HYGIENE
CAMPAIGN**

Media Relations

The best way to carry the Smile...for Life message to a large audience is through the media. CDHA, with the sponsorship of FRANK W. HORNER INC., will be sending a press kit to all major daily newspapers and national magazines.

Watch the upcoming issues of Today's Parent and Today's Health for Dental Hygiene Week articles.

Participants at the Congregate in '88 National Convention in Edmonton were treated to sneak previews of our exciting media campaign. Television and radio spots have been produced featuring Ellen Brownstone as national spokesperson. These will be sent to key broadcast outlets coast-to-coast. As well, Ellen will be travelling during National Dental Hygiene Week to give press interviews. Watch for Ellen "on air".

The best opportunity to promote dental hygiene is through local media outlets. Be sure to satisfy the demand for local stories by alerting the media to your National Dental Hygiene Week activities. Contact your local radio, TV station and newspaper in advance of the planned campaign in your area.

CDHA Has Moved!

Contact us:
CDHA
Suite 201
1018 Merivale Road
Ottawa, Ontario
K1Z 6A5
(613) 728-8730

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B (739-7761



25th

ANNIVERSARY

Help us celebrate the 25th Anniversary of the Canadian Dental Hygienists' Association. The 1989 issues of Probe will highlight the growth and development of the Dental Hygiene profession. Please send us anecdotes, photographs, historical information and any other interesting material from the past 25 years in Dental Hygiene.

Sanguinarine: A unique anti-plaque ingredient.

Sanguinarine helps to inhibit the growth of plaque microorganisms shown to be related to periodontal disease and caries, while not affecting the bacteria normally associated with healthy tissues.¹

1 Dzink, J.L., and Socransky, S.S. Comparative in vitro activity of sanguinarine against oral microbial isolates. Antimicrobial agents and chemotherapy 27:663-665, 1985

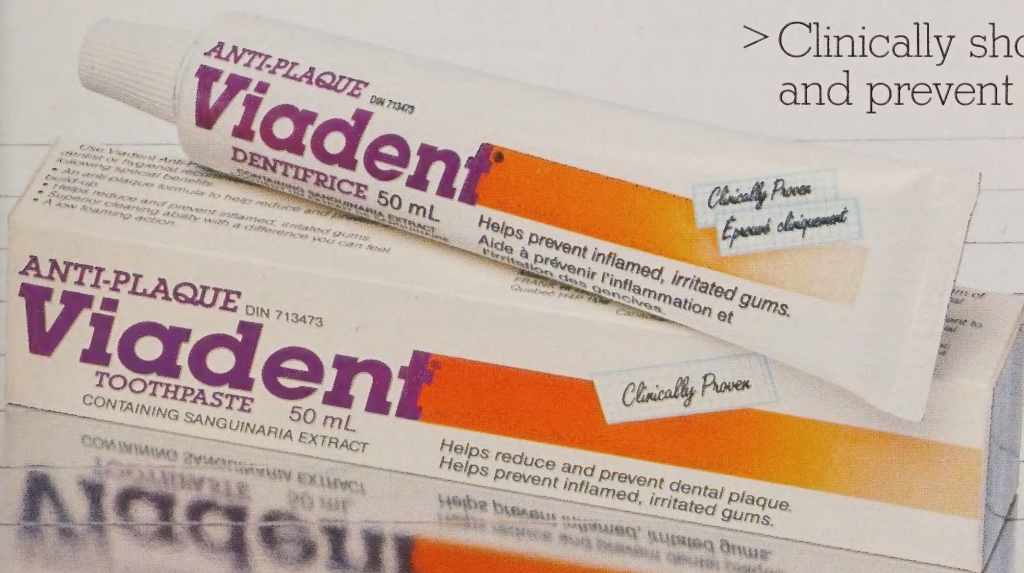
Extensive research demonstrates efficacy against plaque and gingivitis.

Sanguinarine has been tested against plaque and gingivitis in well controlled studies* conducted at major universities and research centres around the world.

In over 25 published articles and abstracts, Viadent was shown to be most effective in plaque control and prevention of gingivitis.

* Available upon request

- > Clinically shown antimicrobial activity that lasts up to 2 hours.
- > Clinically shown to inhibit plaque formation.
- > Clinically shown to reduce and prevent gingivitis.



Recommend Anti-plaque Viadent.
Your patients will feel the difference.



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**DENTAL
HYGIENE
IN CANADA**

CANADIAN DENTAL HYGIENIST STUDY

PART I: DEMOGRAPHIC AND EDUCATIONAL PROFILE HIGHLIGHTS

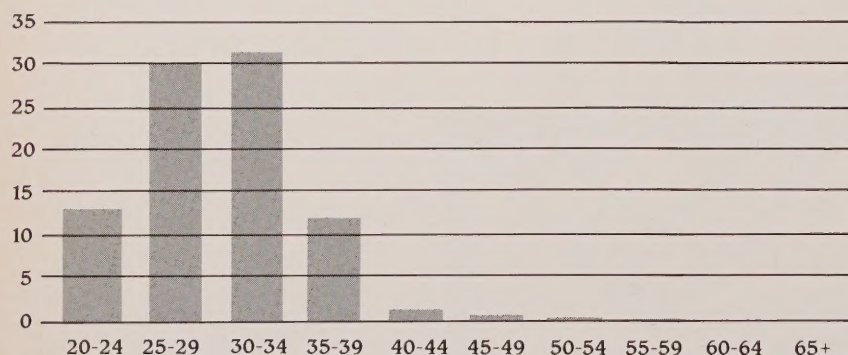
Patricia M. Johnson,
R.D.H., M.Sc.D., M.Sc.

A national study is being conducted to gain more comprehensive knowledge and understanding of dental hygienists in Canada as a professional group. The research was undertaken in conjunction with the Canadian Dental Hygienists' Association and the Corporation Professionnelle des Hygienistes Dentaires du Quebec.

The study's objectives are to: 1) determine the current supply of dental hygienists in Canada - numbers, distribution and employment patterns; 2) describe their demographic, professional, employment, and work characteristics; and 3) examine regional variations in and factors related to patterns of workforce participation and practice.

Figure 1
Age of Respondents

PERCENT OF RESPONDENTS



Dental Hygiene Survey, 1987.

Methods

The study population consisted of all dental hygienists registered to practice and residing in Canada as of May 1, 1987. A two-phase sampling method was used. For the first phase or census survey (N=6180), all participants were asked to respond to a basic set of questions on demographic, educational, registration and licensure, employment and work setting characteristics. For the second phase, the survey questionnaire sent to a probability sample (n=3003) included additional items on, for example, work history and future intentions, employment situation and practice activities, and job and career satisfaction.

The initial mailing of the four-wave survey consisted of a self-administered, primarily closed-item questionnaire in either the english

or french language and covering letters from the researcher, CDHA and, in Quebec, CPHDQ. Data collection extended from May to September, 1987. The overall response rate for the census survey was 89.0 percent and for the sample survey was 85.9 percent. Analysis of census data is based on 5,424 respondents and of sample data on 2,528 respondents.

This report is the first of a series to provide highlights of preliminary findings from the census survey. Future articles in this series will present additional population profiles and examine factors related to workforce participation - that is, employment status and hours of work.

I. Sociodemographic Profile

1. Age

Canadian dental hygienists tend to be a homogeneous population with little regional variation in either age or sex. The average age of the respondents was 31 years old with the youngest aged 20 years and the oldest aged 73 years. Half of the respondents were 30 years old or less. Only 24 percent of the group was 35 years of age or older. (Figure 1)

2. Sex

As has been noted in other studies, dental hygiene continues to be a female dominated profession. Only 1.6 percent of the respondents were male. Among the men, the average age was 40 years old - higher than the average for women. This mean age disparity may be explained in

part by educational preparation. Most of the men received their basic dental hygiene education through the armed forces, a somewhat lengthy process that involves progressive career stages.

3. Place of Birth

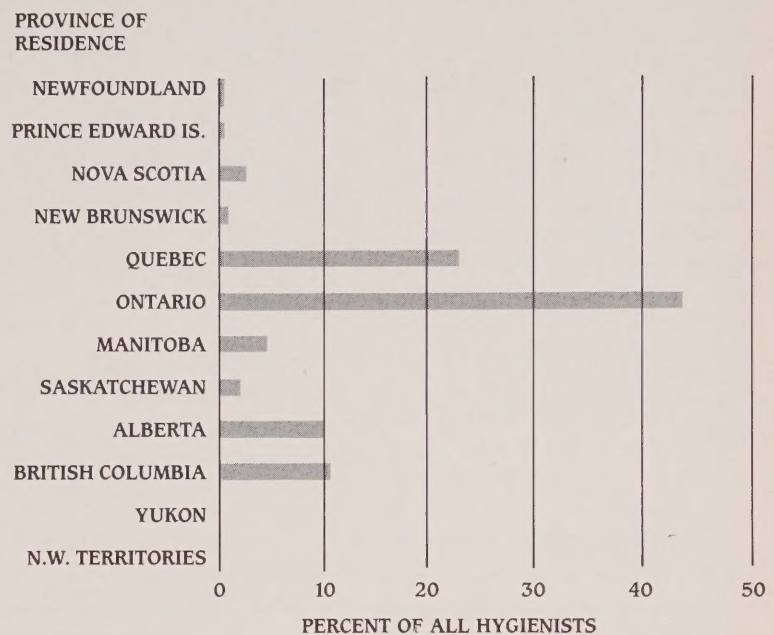
The majority of respondents were born in either Ontario (37.8%) or Quebec (24.9%). Alberta was the third most frequently reported place of birth (7.9%). Approximately 9 percent of the respondents were born outside of Canada.

4. Place of Residence

The distribution for place of residence among dental hygienists appears to follow the general population distribution. Ontario accounted for 44.2 percent of all dental hygienists residing in Canada and Quebec accounted for 23.7 percent, followed by British Columbia (10.4%) and Alberta (9.7%). (Figure 2)

Population and workforce movement have implications for planning educational and service delivery programs. An examination of the relationship between the place of birth and the place of current residence reveals some movement on the part of dental hygienists. The two provinces least likely to retain residents were Newfoundland and Saskatchewan – 35.7 and 37.1 percent of respondents respectively listed that province as both the province of birth and the province of current residence. Retention was highest for

Figure 2
Province of Respondents



Dental Hygiene Survey, 1987.

Ontario (91.2%), Quebec (89.7%) and British Columbia (83.7%).

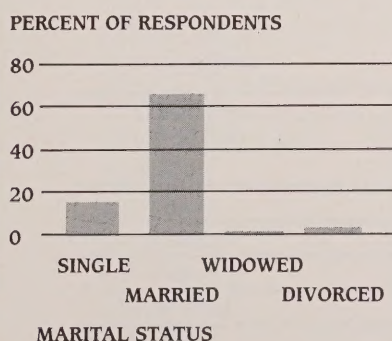
For those reporting migration outside of their province and their region of birth, Ontario was most often the province of choice. Respondents from the maritime provinces were most likely to move to Ontario but not beyond. Respondents in the western region, if moving, were most likely to make a regional move rather than go outside of their region. For those respondents not born in Canada,

Ontario and then British Columbia were the locations of choice.

5. Marital Status

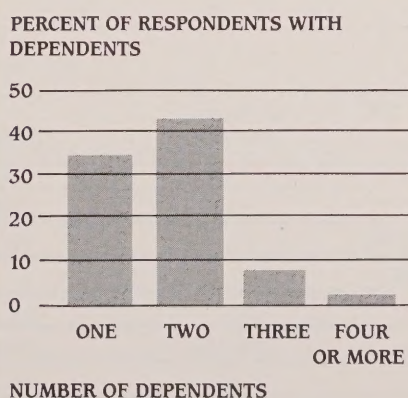
The majority of the respondents (71.6%) were married. Given the preponderance of younger dental hygienists, it is not surprising to note that 23 percent of the respondents were single at the time of the survey and only 5.3 percent were widowed or divorced. (Figure 3) Marital status was closely related to age. The average age of the single respondents was 27 years and 63 percent of those aged 20 to 24 years old were single. The average age of the married group was 32 years and around 80 percent of those aged 30 years and older were married.

Figure 3
Marital Status



Dental Hygiene Survey, 1987.

Figure 4
Family Size: Number of Dependents



Dental Hygiene Survey, 1987.

6. Family Size

Composition of the household can be expected to influence the decision to work or not at paid employment, especially for a female-dominant occupational group. For the purposes of this study, family size was measured as the number of dependents living in the home. Dependents were further defined as those individuals who, because of age or disability, required the

respondent's assistance with daily living. Of the total respondents, 72 percent of whom were married, only 44.6 percent reported one or more dependents in the home. One dependent was reported by 37.7 percent while 47.1 percent reported two dependents. (Figure 4)

Where dependents were reported, more than two-thirds of the respondents reported a child under the age of five in the home. Further analysis indicated age of the youngest dependent (in particular, presence of a 'preschooler') rather than number of individual dependents was most strongly associated with participation in the workforce.

II Educational Profile

1. Educational Setting

Dental hygiene educational programs are offered in a variety of settings. Of the 96.0 percent of respondents who reported graduating from a Canadian program, 56.4 percent graduated from a total of 18 college-based programs and 38.3 percent from six university-based programs. Another 1.3 percent of respondents graduated from the Armed Forces' dental hygiene program.

2. Year and Region of Graduation

The majority of dental hygienists (75.3%) graduated after 1975. This

large cohort of graduates coincides with the opening in Ontario and Quebec of 18 college-based programs in dental hygiene during the period from 1975 to 1978. The region and year of graduation is presented in Table 1.

The percent change in the number of graduates for the period from 1975 to 1979 was notable; there was a 217.4 percent increase over the levels reported for 1970 to 1974. All regions have shown an increase in the percentage of graduates for each successive five year period.

Table 1
Year and Region of Graduation

	REGION OF GRADUATION						PERCENT CHANGE
	CANADA	MARITIME	QUEBEC	ONTARIO	WEST	NOT IN CANADA	
TOTAL GRADUATES	5410 96.0	302 5.6	1762 32.6	1930 35.7	1198 22.1	218 4.0	
YEAR OF GRADUATION							
1932 - 1959	70 1.3	***	1 0.0	38 2.0	***	31 14.3	
1960 - 1964	137 2.5	9 3.0	9 0.5	78 4.1	28 2.4	13 6.0	95.7%
1965 - 1969	350 6.5	28 9.3	11 0.6	167 8.7	109 9.1	35 16.1	155.5%
1970 - 1974	539 10.0	61 20.3	7 0.4	197 10.3	234 19.6	40 18.4	54.0%
1975 - 1979	1711 31.8	71 23.6	595 33.9	689 36.3	306 25.7	50 23.0	217.4%
1980 - 1984	1783 33.2	82 27.2	792 45.2	522 27.2	355 29.8	32 14.7	3.6%
1985	383 7.1	27 9.0	159 9.1	114 5.9	75 6.3	8 3.7	
1986	400 7.4	23 7.6	177 10.1	107 5.6	85 7.1	8 3.7	

Table 2
Educational Qualifications in Dental Hygiene
(Post-Diploma) and Related Fields

EDUCATIONAL QUALIFICATIONS	NUMBER	ADJUSTED PERCENT
EXTENDED DENTAL HYGIENE FUNCTIONS	147	21.9
BACHELOR DEGREE (DENTAL HYGIENE)	33	4.9
DENTAL ASS'T. / DENTAL NURSING	429	56.4
UNSPECIFIED / OTHER	63	9.4
NOT STATED	4752	MISSING
TOTAL	5424	100.0

3. Educational Qualifications in Addition to the Basic Dental Hygiene Diploma

Attainment of educational qualifications in addition to a diploma in basic dental hygiene was reported by 26.5 percent of the respondents. Educational qualifications either post-basic in dental hygiene or in a related dental health field were reported by 12.6 percent of the respondents. (Table 2) The majority received a diploma or certificate in dental assisting (56.4%) while a dental degree was reported by 3.7 percent.

For respondents who reported additional educational qualifications, programs of study were most often in a field not related directly to dental hygiene. Sixteen percent of total respondents reported for a non-

related field; fields included nursing, commerce and law. (Table 3) Overall, two percent of respondents reported educational qualifications, in addition to basic dental hygiene, in both the dental health field and an unrelated field.

Those respondents who have obtained additional educational qualifications, other than in dental assisting/nursing, tend to be slightly older than the general population of dental hygienists, less likely to be married, and also less likely to have a dependent in the home.

SUMMARY

Dental hygiene is a female dominated profession characterized by a youthful segment less than 30 years old. The majority of dental hygienists live in Ontario and Quebec. Almost three-quarters of the

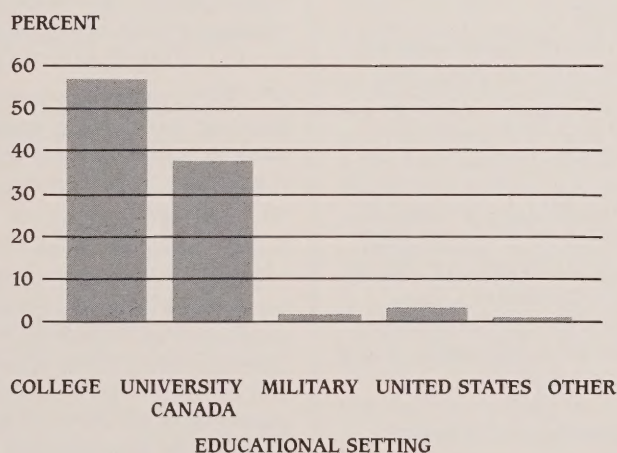
respondents were married and slightly less than half reported the presence of a dependent in the home. The family size tended to be small, with one or two dependents. Most of the dental hygienists completed their course of study in a college setting. Few dental hygienists held qualifications beyond their basic dental hygiene education either in fields related or unrelated to dental hygiene.

Part II will profile registration, licensure and employment status.

Acknowledgement

This study was supported in part by a National Health Research and Development Training Award to the author. ■

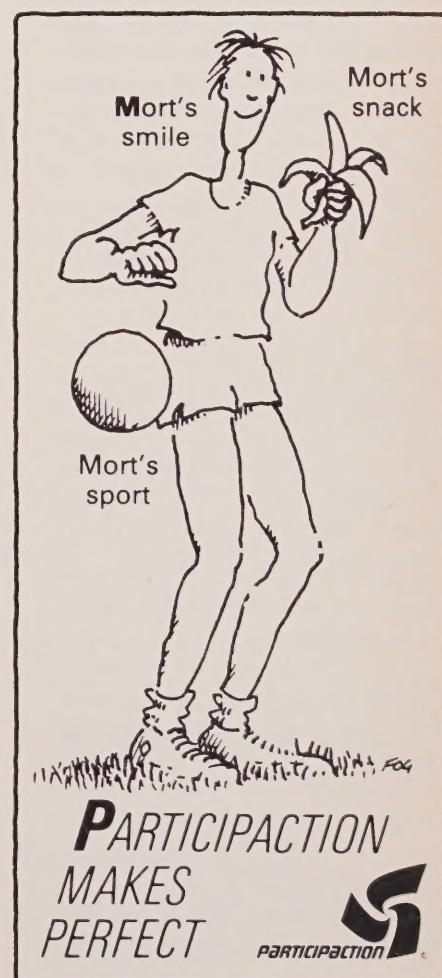
Figure 5
Educational Setting



Dental Hygiene Survey, 1987.

Table 3
EDUCATIONAL QUALIFICATIONS IN
FIELDS NOT RELATED TO DENTAL HYGIENE

EDUCATIONAL QUALIFICATION	NUMBER	ADJUSTED PERCENT
BACHELOR'S	410	48.6
DIPLOMA/CERTIFICATE	375	44.4
MASTER'S	40	4.7
DOCTORATE	1	.1
UNSPECIFIED	18	2.1
NOT STATED	4580	MISSING
TOTAL	5424	100.0



Canadian Fund for Dental Education (C.F.D.E.).

C.F.D.E. was established in 1962 with contributions to dental hygiene beginning in 1969. The Fund's purpose is to improve the quality of dental and dental hygiene education and research throughout Canada with the ultimate goal of improving the quality of dental care for all Canadians.

C.F.D.E. exists through donations from dental health professionals, organizations and the dental industry. Funds are spent in various ways, but all are focused on education and research. The majority of the money goes toward teacher-training fellowships for dentists and dental hygienists but grants are also made for dental schools, special research projects and conferences on education or research among others.

Money donated by dental hygienists, dental hygiene organizations such as C.D.H.A., and companies such as Warner Lambert and Proctor and Gamble is set aside for specific dental hygiene projects. October is C.F.D.E. Month, but tax deductible donations are accepted throughout the year.

Each year C.F.D.E. receives applications from individuals for fellowships. Applications are reviewed by the Advisory Committee on Fellowship Selection and ratified by Board of Trustees. When dental hygiene fellowship applications are under consideration, a dental hygiene representative is in attendance. Successful candidates are noted in *Probe*.

How Has Dental Hygiene Benefited from C.F.D.E.?

1. Teacher Training Fellowships
To quote C.F.D.E.'s own advertising, "To a large degree, the nations standards of dental care depend on the quality of the professionals who

instruct our incoming practitioners. Ensuring that our dental and dental hygiene programs are adequately staffed with highly skilled instructors has always been a prime objective of C.F.D.E." Many of the dental hygiene programs across Canada have one or more instructors who have benefited from C.F.D.E. sponsorship.

2. Dental Hygiene Image

a) Self-Image

Although many of us will never have the opportunity to take any advanced educational or research training, we can all take pride in the accomplishments of those who have. C.F.D.E. recipients are providing strong role models for all of us.

b) Professional Image

Advanced training for education and research by dental hygienists has heightened our visibility and widened our scope.

c) Public Image

The image the public has of dental hygiene is usually based on their treatment by the dental hygienist with whom they come in contact. The competence of each one of us reflects on the profession as a whole. The skills and attitudes we learn as undergraduates are all-important in producing dental hygienists who are a credit to the profession. Thus, C.F.D.E.'s commitment to education will be reflected in our quality of care and public acceptance.

3. New Opportunities for Dental Hygienists

The list of recipients of C.F.D.E. fellowships reads like a "Who's-Who" of dental hygiene in Canada. In many cases, those who take advanced training for education or research are pioneers. They have found areas of interest which are allied to, but expand upon, traditional dental hygiene. They achieve personal growth through their experience, but they also contribute to the growth of the profession. Where one person goes, more are bound to follow.

An example of expanding horizons would be Pat Johnson. Pat received three half-fellowships from C.F.D.E. to help towards completion of a Bachelor of Science in Dentistry and the first year of a Masters of Science in Community Health. In 1984, Pat was the first dental hygienist to receive the Henry M. Thornton Fellowship which is awarded to the fellowship candidate deemed most deserving. This, along with another half-fellowship, has helped Pat in working towards a Ph.D. in Community Health (Health Policy and Administration).

4. Professional Association Activities

a) C.D.H.A. and the provincial dental hygiene associations have used C.F.D.E. funds to help sponsor conferences and workshops. A number of these have been held over the years, such as C.D.H.A.'s Continuing Education Conference "Let's ALL Learn" held in Halifax in 1986. This was the fourth year in a row that C.F.D.E. had contributed to a C.D.H.A. workshop.

b) C.F.D.E. recipients, more often than not, are active in Association work as well. They help the Association to see what can and should be done.

5. Research Fellowship

Realizing the need for more dialogue on research by dental hygienists, a conference on Dental Hygiene Research was held in Winnipeg in 1982. It drew together the finest gathering of speakers on the subject of dental hygiene research to that time. Sponsors for the conference included the National Health Research Development Program, C.D.H.A., C.F.D.E. and the Faculty of Dentistry, University of Manitoba.

As C.D.H.A.'s representative at C.F.D.E., it is my hope that the link between our two organizations can continue and be expanded upon. ■

Linda Berry

OFFICIAL POSITION OF THE CANADIAN DIETETIC ASSOCIATION **OBESITY: A CASE FOR PREVENTION**^{1,2,3}

Position Statement

Obesity, defined as excessive body fat relative to lean body mass, is a prevalent complex health problem in Canada with many associated health risks. Treatment-based approaches have been largely unsuccessful. It is the Position of The Canadian Dietetic Association that the prevention of obesity be achieved through health education and promotion programs which focus on prevention of body fat levels associated with health risks. These programs should be directed to all stages of the life cycle.

Obesity affects between 26 and 39% of adults over the age of 20 years, and 5 to 25% of children depending on the criteria or standards used for judging adiposity. Excess body fat is associated with an increased risk of ischemic heart disease, noninsulin-dependent diabetes mellitus, hypertriglyceridemia, hyperinsulinemia and hypertension. Sustained obesity extending from young adulthood into adult years has a greater health risk than obesity that occurs in middle age.

Lack of consistent and accurate means for identifying those at risk due to excessive body fat is one factor that has hindered preventive efforts. Body fat determination methods in common usage in public health and clinical settings include heightweight tables, body mass indices such as the Ponderal Index⁴ and Quetelet's Index,⁵ measurements of skinfold thickness and waist-to-hip ratio. None of these is without limitations. Both heightweight tables and the Ponderal Index have inherent population

biases. Height-weight tables do not take other risk factors into account, nor do they measure the degree of adiposity or its regional distribution. Skinfold measurements are useful for assessing regional and overall adiposity and for monitoring fat loss for all age groups. They do, however, require highly skilled personnel to obtain reliable data.

Although more definitive Canadian data are needed on the Quetelet Index as a health risk assessment tool, it has been recommended by the Canadian Expert Group on Weight Standards as well as the National Institutes of Health (NIH) Consensus Development Panel as an appropriate measure of adiposity and associated health risk in the adult population. It cannot be used with children or adolescents, nor is it appropriate for predicting risk in the elderly. Athletes with an extremely lean physique or with a high percentage of muscular mass to lean body tissue also may be inaccurately assessed at risk using the Quetelet Index.

Distribution of body fat is another useful screening method for identifying health risk particularly when used as an adjunct to the body mass index. Upper body fat patterns (android or apple shape) are indicative of greater health risk than body fat distribution on the hips and thighs (gynoid or pear shape). Although techniques for determining this fat distribution are imprecise, waist-to-hip ratio is commonly used. Value of 1.0 and 0.8 or greater in men and women respectively have been suggested to confer risk.

Since there are no Canadian weight standards for children and adolescents, more research is needed to identify appropriate

screening techniques for these groups. The use of growth charts of the National Centre for Health Statistics (NCHS) in conjunction with personal and family weight history and visual assessment now are recommended. Skinfold measurements should be determined when a child's weight-for-height exceeds the 90th percentile, or if there is a discrepancy between the child's appearance and weight-for-height exceeds the 90th percentile, or if there is a discrepancy between the child's appearance and weight-for-height percentile. Skinfold assessments are also necessary for determining adiposity in adolescents as their rapidly changing body composition renders weight-for-height indices particularly unreliable.

Individuals identified as being at-risk due to excessive body fat should be assessed to determine appropriate treatment therapy. A large majority of successful reducers regain at least a portion of weight lost regardless of treatment, but particularly following adherence to quick weight-loss, low energy diets. Programs that combine a well-balanced modified diet, exercise and behavioural/psychological support are most likely to promote long-term results for sustained fat loss and maintenance of healthy weight levels.

Because of the limited success of treatment efforts in promoting and sustaining fat loss and due to the associated health risks of obesity, prevention of weight problems is the preferred strategy for combatting obesity. Programs that build positive self-image and promote positive health attitudes and behaviours (such as selection of a sensible diet and regular participation in physical activity) should be advocated throughout the life cycle.

Recommendations for Action

It is recommended that The Canadian Dietetic Association act to:

- advocate programs that encourage Canadians of all ages to develop and maintain appropriate activity and eating behaviours to achieve and sustain healthy/appropriate body fat levels,
- increase knowledge among the public and professionals regarding body fat levels, fat distribution, and factors affecting weight control,
- promote an environment that supports the attainment and maintenance of appropriate body fat levels and positive body image,
- advocate research for the development of methods for screening and early detection of individuals, including children and adolescents, who are susceptible to developing weight problems,
- liaise and work co-operatively with government departments, industry, educational and health care systems as well as community agencies to carry out this mandate.

Review of the Literature Supporting Recommendations on Obesity: A Case for Prevention

Prevalence and Health Risks Associated with Obesity

Excessive body fat is a complex health problem in Canada, affecting between 26 and 39% of adults over the age of 20 years (1,2) and 5 to 25% of children (3,4) depending on the criteria or standards used for judging adiposity. According to the Canada Fitness Survey (1), men between the ages of 20-24 years showed a pronounced increase in body fat, based on the Quetelet Index (1,5). By age 45-54 years a plateau in weight was observed. A similar age-related increase in excessive weight was evident for women, but without the weight plateau.

The results of the Health Promotion Survey (2) support this sex-related trend for obesity with more men (39%) than women (26%) falling into

the upper body mass index categories associated with the development of health problems including ischemic heart disease, noninsulin-dependent diabetes mellitus, hypertriglyceridemia, hyperinsulinemia and hypertension (6,7). Sustained obesity extending from young adulthood into adult years has a greater health risk than obesity that occurs in middle age (6).

Researchers have demonstrated an inverse relationship between obesity and income in adults with those of lower socioeconomic backgrounds exhibiting higher incidence of excess weight (8,9).

The diet industry, which depends on marketing of products, foods, devices and information related to weight control and weight loss is testimony to the fundamental preoccupation North Americans have with body weight (10). In spite of the number of weight control aids, programs and diets, only 10 to 30% of patients achieve and maintain weight loss regardless of type of therapy (11). This fact, as well as the health risks associated with obesity, underscores the need for preventive programs at all stages of the life cycle.

Definition and Screening Measures for Obesity

Lack of consistent criteria for identifying the obese and those at greatest health risk is one factor that has hindered preventive efforts.

Obesity has been defined as excess body fat relative to lean body mass (12,13). The determination of the amount of body fat through densitometry, whole body potassium counting and tritiated water dilution requires sophisticated methods that are available only in research laboratories. For public health and clinical settings, more convenient measures are needed. Most assessment techniques are based on determinations of height and weight, measurements of body diameters and circumferences and assessment of skinfold thickness (14).

Height-weight tables for men and women developed by the Metropolitan Life Insurance Company (15,16) have been the most

commonly utilized methods for determining desirable body weight. The definition of overweight and obesity in adults has been based on these actuarial analyses that indicate the weight range for height category associated with the lowest mortality rate in an insured population (17). The limitations of these tables include the facts that they may not be applicable to the entire population, particularly the lower socioeconomic groups and some ethnic groups; they ignore other risk factors such as smoking; they do not measure degree of obesity or regional distribution of fat; they have relied on an ill-defined concept of frame size; and they do not take age into account (12).

Measurement of skinfold thickness is a more direct index of obesity (18). Although the technique requires a well-trained practitioner in order to obtain reliable data, when done appropriately it is a useful means of assessing regional and overall adiposity and for monitoring fat loss for all age groups.

Various ratios of height and weight have been used to estimate body fat and predict associated health risk. Ponderal Index (PI)⁴ is one method utilized in the Nutrition Canada Survey (19). Low PI is indicative of excess body weight while higher values denote leanness. Its application to women and non-white populations has not been examined (19).

The Report of the Expert Group on Weight Standards for the Canadian Adult Population (20) as well as the National Institutes of Health (NIH) Consensus Development Panel (12) have suggested that Quetelet's Index⁵ is a more appropriate measurement for determining excessive weight associated with health risk for adults of both sexes. It correlates highly with laboratory estimates of fatness (21), it minimizes the effect of height and has the further advantage of permitting comparisons of populations (12). This body mass index (BMI) is not appropriate for use with the elderly population as its predictive value for health risk declines with increasing age (22). Athletes having very lean physiques or those with a high proportion of

muscle mass to lean body tissue also may be inaccurately assessed for health risk utilizing the Quetelet Index (23).

Distribution of body fat can be a useful screening method for health risk particularly when used as an adjunct to the BMI. Upper body fat patterns (android or apple shape) are indicative of greater health risk than body fat distribution on the hips and thighs (gynoid or pear shape) (22). Although techniques for determining this fat distribution are imprecise, waist-to-hip ratio is commonly used (24-26). Values of 1.0 and 0.8 or greater in men and women respectively have been suggested to confer risk.

Since there are no Canadian weight standards for children and adolescents, more research is needed to identify appropriate screening techniques for these groups. There is considerable variance in body composition among growing children at different ages, particularly at the extremes of stature (27). Therefore, measures of obesity that are appropriate for screening adults are not applicable to children (13). Presently weight-for-height grids, such as those of the National Centre for Health Statistics (28) are recommended in conjunction with personal and family weight history and visual assessment. Data collected by Yeung et al. (29) on infant weight, length and fat folds may also be useful in establishing growth standards for Canadian infants. When a child's weight-for-height exceeds the 90th percentile or if there is a discrepancy between the child's appearance and weight-for-height percentile, skin-fold measurements should be used to assess body composition more accurately (13). For assessing adiposity in adolescents, skinfold measurements are recommended as their rapidly changing body composition renders weight-height indices particularly unreliable (13).

Etiology of Obesity

The specific derivation, the exact pattern and the mechanisms that control adipose tissue development are not well known, although several theories exist.

a) Set-point theory

Research indicates that both animals and humans are capable of maintaining body weight within narrow limits over extended periods (30). The stability of this maintenance under widely differing environmental and physiological conditions supports the view that body weight is regulated around a reference level or set-point. The set-point is defended by controlling both the ingestion of energy and its rate of expenditure. This may explain why, in spite of following low energy diets, many obese people find it difficult to reduce and supports the need for prevention of excess weight from accumulating.

b) Fat cell theory

Less than a decade ago it was believed that critical stages for fat cell proliferation occur during late prenatal and early postnatal development and in early adolescence (31,32). Research on rodents now indicates that some strains of rats continue to accrue new fat cells throughout life (33). An increase in adipocytes can also be induced in common strains of adult rats fed high energy diets (34). This same pattern may be true for humans (35). Faulty regulation in normal adipose cell development either through genetic or environmental influences can lead to increased proliferation and subsequent increased adiposity (36). Once fat cells develop, they are not likely to be eliminated by any current reduction techniques; only a reduction in the size of the fat cells can be brought about (13,36). This is further support for prevention of overweight.

c) Genetic vs environmental influence

Although controversy exists over which has the greater role in determining weight – environment or heredity (37,39) – both appear to exert important influences. Children of obese parents are more likely to become obese as well. Although a child cannot choose parents, the incidence of obesity in either or both parents is a useful screening device for directing young families into preventive programs that promote sensible eating and activity habits.

Treatment Approaches to Obesity

A national preoccupation with dieting has led to a proliferation of published diet books, special diet foods and weight loss clinics – some nutritionally sound, others unbalanced, scientifically unfounded and even potentially dangerous (40-43).

Countless dieting fads have gained popularity for their promise of instant weight loss with minimal effort (44). These regimens are usually nutritionally unbalanced and generally fall into one or more of the following categories: high/low fat content; high/low protein; high/low carbohydrate. There is no evidence to suggest that alterations in the proportion of energyyielding nutrients or in the timing of food intake has metabolic effects which affect the rate of the fat loss beyond those which can be attributed to the energy deficit generated (45). Aside from not promoting sound nutritional habits, many of these faddish approaches to weight loss result in undesirable side effects such as fatigue, dizziness, postural hypertension, fluid and electrolyte imbalances (46,47). Moreover, those diets with high fat content may pose difficulty for individuals at risk for hyperlipidemia.

Information that exists on commercially sponsored programs, self-help groups and programs offered by health professionals, whether in a clinical, community, or work-site setting have documented only modest weight loss (48-52). A study conducted by Colvin and Olson (53) revealed that regular physical activity in addition to a hypocaloric diet was an important factor in promoting and sustaining weight loss. Other researchers also support this observation (54-60). As well as expending more energy, the benefits of exercise in a weight management program include the partial offsetting of decline in basal metabolic rate which occurs on hypocaloric diets (60). In addition, an effective energy deficit can be maintained at a level of food intake more likely to be consistent with a nutritionally adequate diet. A further advantage of exercise often cited is that of

depressing the appetite especially among those individuals who are normally sedentary (61,62). This observation is not unequivocal. Some researchers have suggested that factors other than exercise are involved in controlling appetite, specifically the variety and palatability of the diet (63).

The use of behavioural treatments of obesity have been studied to determine their effectiveness at both promoting and sustaining weight loss. In a five-year follow-up study on behavioural weight control programs, researchers found that subjects typically regained most of the weight lost during treatment (64). Of those meeting more long-term success, weight maintenance correlated with the continuation in use of behavioural change strategies.

It appears that treatment programs chosen to meet individual needs with a combination of modified diet, exercise and behavioural/psychological supports are likely to promote the best long-term results for sustained fat loss and maintenance of healthy weight levels (41).

Treatment is not the Solution to Combatting Obesity

In spite of well-designed individualized treatment programs utilizing this recommended combination of therapies, most people who are overweight are unsuccessful at losing and sustaining weight loss (11), leading to an endless circle of weight loss, drop out, weight gain and participation in yet another new program. A Gallup poll found that 31% of American women 19 to 39 years of age diet at least once a month and that 16% consider themselves perpetual dieters (65). Evidence indicates that this "rhythm method of girth control" may be detrimental to health by increasing the risk of cardio-vascular disease since serum lipids rise when one is in positive energy balance (66). Furthermore, studies with animals have shown consistent metabolic effects of dietary restriction and refeeding in both normal weight and obese animals. For example, Bjorntorp and Yang (67) and Brownell et al. (65)

found that energy maintenance requirements were substantially reduced by previous dieting experience in rats. Other animal researchers have demonstrated that obese rats fattened on high energy diets can maintain their obese weights when switched to a diet equivalent in energy to that of control animals of normal weight (68).

It has been hypothesized that fat cell hypertrophy, such as may occur during rapid regain of lost body weight may ultimately trigger increased numbers of fat cells thereby producing a more long-term stimulus to weight gain (69).

Clearly there is a need for health education and promotion programs that prevent the occurrence of weight problems associated with ill health.

Models for Preventive Strategies

Several successful comprehensive community-based programs for prevention of cardiovascular disease exist as useful models for public health preventive practice (70-72). Methods in these programs included media, direct education and community organization, the hypothesis being that educational interventions planned with, through and for communities would lead to change in community norms and to changes in individual and family behaviours conducive to heart health.

The Canada Fitness Survey revealed that children between the ages of 9 and 15 years who had the highest scores for self-esteem had a greater likelihood for positive health attitudes and behaviours (1). Poor self-image is often fostered in overweight individuals by successive attempts to lose weight and by ridicule by peers (73-77). This in turn may inhibit the weight loss process (78,79).

Conclusions and Recommendations

The high prevalence of obesity in Canada, its association with major health risks and the lack of success in promoting permanent weight loss among the obese at all stages of the life cycle, all point to the need for

prevention of weight problems. To achieve this goal it is recommended that The Canadian Dietetic Association act to:

- advocate programs that encourage Canadians of all ages to develop and maintain appropriate activity and eating behaviours to achieve and sustain healthy/appropriate body fat levels,
- increase knowledge among the public and professionals regarding body fat levels, fat distribution, and factors affecting weight control,
- promote an environment that supports the attainment and maintenance of appropriate body fat levels and positive body image,
- advocate research for the development of methods for screening and early detection of individuals, including children and adolescents, who are susceptible to developing weight problems,
- liaise and work cooperatively with government departments, industry, educational and health care systems as well as community agencies to carry out this mandate.

References Available Upon Request

¹The Canadian Dietetic Association is a national association of 4,000 professionals qualified to practice in the field of dietetics and nutrition. The Association has, as its mission, the promotion and support of quality dietetic practice towards the optimal nutritional well-being of the public.

²This Position Paper was approved by the executive of The Canadian Dietetic Association, December 4, 1987; the expiry date is December 1990.

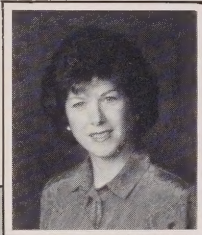
³This Position Paper has been officially adopted by the Alberta, Manitoba, New Brunswick, Newfoundland and Ontario Dietetic Associations.

⁴Ponderal Index = Height (in.)³/Cubic root weight (lb.)

⁵Quetelet's Index = Weight (kg.)/ Height^2 (m)

TEETH MAKE THEIR "MARK"

IN FORENSIC ODONTOLOGY



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Abstract

Forensic odontology is defined as that branch of dental science dealing with the professional handling, examination, interpretation and presentation of dental and oral evidence which comes before the legal authorities.

A significant area in the field of forensic odontology is that of bite mark investigations. Bite marks have been found on victims of homicide, sexual crimes, and child abuse as well as on foodstuffs left at the crime scene.

The recognition and interpretation of bite marks including factors that may influence their appearance are discussed in this paper. Techniques regarding the collection and recording of evidence from both the victim and the suspect, as well as methods used for courtroom presentation are reviewed.

Biting is a primitive behaviour. In children it is one of their first aggressive outlets. Teeth are a convenient weapon and the resulting marks made by an individual's dentition provide evidence which is becoming significantly useful in the field of forensic odontology.

The number of bite marks being detected and reported by law enforcement agencies, coroners and forensic odontologists has increased greatly. Forensic pathologists often encounter such important evidence during an autopsy. The judicial system is looking at this evidence in a more favorable manner than in previous years.¹

Bite marks play a decisive role in criminal identification. They are often inflicted by the burglar, the murderer, the rapist or by the victims themselves in a desperate attempt at self-defence. One of the more disturbing facts is the rise in bite mark evidence used in detecting offenders in the battered baby syndrome.^{2, 10, 17}

Bite marks have been investigated in flesh, foodstuffs and a variety of inanimate objects such as wooden cabinets, pipe-stems and musical instrument mouthpieces. Criminals often unwittingly leave a bite mark at the scene of a crime when taking a bite of food. Reported cases have involved bite marks found in cheese, apples, cucumbers, sandwiches and chewing gum.¹²

During an arson investigation in England in 1976, police found a half

eaten apple. A study of the apple provided 46 points of similarity with the teeth of a man police picked up as the possible arsonist. The man was convicted – the sole piece of evidence to link the arsonist with the crime had been the bite mark left in the apple.²

At the trial, the judge stressed that forensic odontology was now an established science and bite mark evidence was as admissible as fingerprints.

Bite mark evidence has been accepted by the courts in 20 of the United States, Scotland, Australia, Japan and Scandinavia.⁹ The first time such evidence was presented in a Canadian court was in 1972 during a murder trial in Calgary, Alberta.¹¹

In May 1971, a 33 year old high school teacher was found on the floor of her Calgary apartment, a victim of rape and murder by strangulation. Investigators noted teeth marks on her breast and neck. Two days later the police were holding a suspect and requested the assistance of Dr. J. Swann, a Calgary dentist, in the investigation of the case.

A detailed analysis of the teeth and occlusion of the accused and the

bitemarks present on the victim clearly indicated 29 points of similarity. The presentation of this evidence led to a positive conclusion and the suspect was found guilty as charged.

After hearing news of the Calgary slaying, two Montreal detectives arrived in Calgary with photographs of three unsolved murders. The murders occurred over a three and one-half month period in late 1969 and early 1970, and involved three women in their early twenties who were sexually assaulted and strangled. Teeth marks were found on the bodies of two of the three victims.

The marks presents on the right breast of one of the slain Montreal women were similar in pattern to those found on the body of the Calgary victim. When police interviewed the suspect the following day, he confessed to murdering the three Montreal women. The suspect later appeared in the Quebec Supreme Court, pleaded guilty to the slayings and received a life sentence in each case.

Bitemark analysis is based on the fact that when an individual bites an object he usually will leave a pattern unique to that set of teeth. Because of factors such as size, shape, wear, rotations, spacing, malposition and restorations, no two sets of human teeth are exactly alike.^{1,5}

The appearance of the mark left is greatly influenced by the quality of the substance into which the bite was made, the location of the bite, the teeth involved, the action of the surrounding musculature and the mental state of the biter.^{2, 5, 9, 10}

Many bitemarks have been made into substances which are less than ideal dental impression materials. Characteristics of a bitemark made into perishable food can be altered by shrinkage and distortion. In living victims there is often distortion of the mark's features due to edema, discoloration and infection. Bitemarks inflicted after death may be changed by post-mortem deterioration.

The location of the bite influences the pattern of the mark. The resulting pattern depends on factors such as

whether the bite was made into loose or firm skin and on a flat or curved surface. Skin thickness and its mobility may give the bitemark an oblong shape.¹⁰

The position of the marks helps to determine the possibility of them being self-inflicted by the victim. In murder and rape cases, the attacker may often force the victim's hand into his/her mouth to stifle the screams and outcries.

The mental state of the biter and the motivation of the act may be varied. If it is an aggressive bite the marks of the teeth are usually multiple and in near vicinity to each other. The outer layer of skin is usually penetrated or torn.³

The sadist often leaves the best mark for interpretation since he usually bites slowly and intentionally, leaving well defined tooth marks.²

Bitemarks have been found almost everywhere on the human body and certain patterns are more prominent in particular cases. The bitemark pattern when left slowly and/or sadistically exhibits a central ecchymotic area or "suck mark" surrounded by a radiating linear abrasion pattern resembling a "sunburst".⁵ These wounds may be produced during or following a sexual act and are found mainly on the victim's breast, neck or top of the arm. Another form that a bitemark may take is the bite "ring" made by the incisor teeth of each arch.⁶

Bitemarks on the back are often associated with homosexual cases as well as marks on the face, arms, shoulders, axillae and scrotum. In child abuse cases bitemarks are found randomly placed on the cheeks, backs, abdomen, buttocks and genitalia. Usually there are other signs of abuse as well, such as bruising, pinch marks and burns.¹⁰

Whatever the reason or the substance bitten, there are three distinguishing factors to be considered; these are tooth marks, arch marks and bitemarks.³

In some cases all three factors are present, while in other cases only one or two can be found. The demonstration of these factors determines the strength of evidence needed to reach a definite conclusion.

Tooth Marks

Characteristics of tooth marks reflect the shape of their incisal or occlusal areas. Incisor marks are rectangles or portions of rectangles, canine marks are triangles or portions of triangles. Premolar marks may be triangles, circles or diamond shaped.¹⁰

From the detail of these marks the examiner can often determine if the tooth making the mark had any morphological or acquired defect that would produce a mark of significance.³ For example, as people age the biting edges particularly of lower teeth become considerably worn and produce a different mark compared to the chisel action of young teeth.

In the investigation of tooth marks confirmation must be made that the marks are definitely of human origin and not made by some instrument or an animal's bite. The latter is usually not difficult because of the difference in size and shape between human and animal dental arches. For example, dogs have a narrower mouth with prominent canines, their teeth are shaped differently causing deeper wounds. Cat bites are small and round. Rodent bites usually have a scalloped edge and are associated with a moderate amount of adjacent soft tissue injury. Non-human bites are not uncommon in death investigations.¹⁰ They result from the body being in a confined space accessible to household pets or the body may be in an open location accessible to various wild animals.

Arch Marks

The term "arch mark" refers to the pattern presented by the upper and/or lower teeth.³ When arch marks are assessed consideration is given to the continuity of the arch and any indications of missing teeth, malalignment, spacing and malposition.

The measurement of the intercanine width may give some idea of the assailant's mouth size and deduce the possibility of a child bite or an adult with a small mouth. The partition between the upper and lower arch marks allow the establishment of the approximation of the mid-line and at the same time

indicate the direction of the attack. The positional relationship between the criminal and victim may provide important circumstantial evidence.

Bitemarks

Human bitemarks are identified by their shape and size. They are usually ovoid, elliptical or round in shape and contain individual bruises or contusions representing the corresponding teeth.^{10,15} Bitemarks rarely contain more features than those exhibited by the anterior teeth.

Observations have shown that different jaws deposit different patterns of bitemarks.¹ The mark caused by the maxillary arch is usually diffuse because of the integrity of the maxilla in the skull. The mandible being mobile, acts as a cutting instrument resulting in more distinct tooth marks being formed.¹⁰

Collection of Evidence From the Victim

Proper handling of the evidence begins at the scene of the crime when the pathologist, coroner, or dental consultant writes a thorough description of the mark including the anatomical location, shape, dimensions, color, surface contour, nature of the underlying structure and mobility of the skin. The type of injury is also noted, i.e. contusion, abrasion, incision, laceration. This procedure is conducted as early as possible since the appearance of the mark changes during the post-mortem interval, the most distinctive marks being present when the bite is inflicted just prior to or shortly after death.¹⁰

The duration of the bitemark depends on the force applied, the extent of tissue damage, and the nature of the skin surface.¹⁶ After the force is released, fading of the marks will follow due to the elastic recovery of the skin. Marks that do not break the skin can last from several minutes to twenty-four hours. When the skin is broken the marks' borders or edges will last several days depending on tissue thickness. Thinner areas retain the marks longer.¹⁰

The use of photographs both color and black and white is the most

commonly used technique for recording bitemarks.³ The photographs are taken immediately, shot from directly above the injury and from different angles to emphasize the outline and pattern of the mark.

The use of different lighting is helpful to best capture the bitemark as it appears and to bring out the texture and surface indentation.^{14,15} Photographs are taken with and without a millimeter ruler. If the mark is on human skin, an anatomical landmark is included. The ruler serves as a constant reference when comparisons are made between the bitemark and photographs of the suspect's teeth. The photographs taken without the ruler demonstrate that the ruler has not obscured any evidence. Bruising and swelling around the bitemark on a living victim may initially obliterate some of its characteristics. Later, as the inflammation response subsides, the mark may be easier to interpret, therefore, photographs are usually taken over a period of several days.⁹ All photographs are prepared on a 1:1 basis, i.e. lifesize.¹⁴

When examining the bitemark, efforts are made to collect appropriate samples of saliva. The majority of the population (80%) secrete blood group substances corresponding to their blood type in their body fluids.¹⁰ Findings obtained from the saliva sample determine the A, B, O blood group of the person who deposited the bitemark. Determination of blood group antigens can further implicate or eliminate the suspect. Collection methods used in forensic science aim at collecting the relevant material in as concentrated form as possible with minimum contamination and in a form compatible with the appropriate testing methods.⁸ The amount of saliva deposited with the bitemark is usually small and is distributed over a relatively large area of about three square inches. Saliva samples may be collected on cotton wool swabs, fabric, paper or on a post-mortem sponge. These specimens are transported to the testing laboratories, usually crime laboratories, as soon as possible after collection.

The dental consultant makes impressions of the bitemark with an appropriate impression material. A cast is made to replicate the pattern of the mark, therefore providing a description of the biter's teeth. This allows a comparison to be made with the dentition of the suspect, and provides an excellent aid for presentation to the jury.^{5, 9, 10, 15}

A new technique involving dusting and lifting the bitemark print has been described by Rao and Souviron.¹⁵ This method involves brushing the bite area using the standard fingerprint black powder and a camel hair brush. Clear fingerprint lifting tape is used to lift the print which is then placed on a glossy fingerprint card. The advantages of ease, speed and excellent clarity and detail of the lifted print make this technique useful to crime investigators.

The presence or absence of microscopic subcutaneous bleeding can be helpful in determining whether the bite was inflicted before, at the time of, or after death.¹ Aging the bitemark can therefore place the mark in the time frame of the crime.

Collection of Evidence From the Suspect

Before evidence is collected from the individual suspect a search warrant, court order or legal consent may be required. A copy of these documents is kept in the suspect's file.⁶

Photographs, impressions, wax registration, saliva and/or blood samples are required for comparison purposes. Sample bites into appropriate material are made when feasible. The dental consultant performs an extra oral examination which includes the recording of significant soft and hard tissue factors which influence biting dynamics such as TMJ status, facial asymmetry and muscle tone.

During the intra oral exam, a thorough dental chart of the suspect's teeth is prepared including the size and function of the tongue, and the periodontal condition, with particular reference to mobility and areas of inflammation or hypertrophy.



There have been differing opinions from qualified experts regarding the interpretation and proper use of bitemark evidence in criminal cases. During trials, the validity of the evidence has been challenged as well as the lack of standards for collection and use of this type of evidence.

In 1984, guidelines concerning collection, handling and presentation of bitemark evidence were adopted by the American Board of Forensic Odontology.^{7, 15}

Court Presentation of the Evidence

There are a variety of ways used to demonstrate bitemark comparisons in the courtroom. One comparison is made by placing the suspect's models (life size) directly on the life size (1:1) photographs of the bitemark.¹⁵ Some forensic investigators prefer to demonstrate comparisons by presenting side by side, greatly enlarged photographic prints of the victim's bitemark and the suspect's bite pattern.⁹ The most widely used method is that of placing a transparent overlay of the suspect's bitemark pattern over a lifesize print of the victim's wound and then demonstrating points of similarity.

A slide transparency of the bitemark is projected onto a screen and then another projector or overhead projector is used to superimpose the suspect's bite pattern.

More sophisticated techniques depend on the use of computers where an image of the bitemark is stored in the computer, enhanced, then manipulated around the screen

to be compared with another bitemark image.⁹ If adequate photographs were obtained, computer enhancement can allow the bitemark to be digitalized and then viewed three-dimensionally thus increasing the marks characteristic details.

Conclusion

Currently the number of dental personnel involved in forensics is few however, the potential for increased involvement by all members of the dental community becomes increasingly possible as various forms of dentally related evidence becomes admissible in court.

Bitemark evidence has become a valuable aid leading to the conviction of suspects in crimes associated with sexual assault, homicide and child battering. The recognition, collection and subsequent interpretation of this evidence demands a great deal of skill.

Bitemarks can play a decisive role in the detection and prosecution of suspects in human rights violations. As forensic science advances in this area, so shall the value of this evidence in criminal investigations.

Slides are presented courtesy of Dr. Diane Stevenson of the Saskatchewan Coroner's Office. ■

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Facts

about Dental Hygienists

1

Dental hygienists are licensed health care professionals concerned primarily with the prevention of dental disease. Hygienists are responsible for providing education and treatment that helps prevent periodontal disease (gum disease) and dental caries (cavities). As members of the dental team, hygienists work with patients to achieve and maintain optimum oral health.

2

The first dental hygiene program was established in Canada in 1951. From the first graduating class of less than 10, the number of hygienists has grown rapidly over the past years so that today there are approximately 6000 dental hygienists across the country.

3

The education of dental hygienists, which requires a minimum of 2 years study after senior matriculation, emphasizes basic sciences, (chemistry, biology, nutrition, anatomy and physiology) and communications. Students develop the specific clinical skills necessary to provide preventive dental health services to the public. Dental hygienists are eligible to apply for provincial licensure after graduation from a recognized education program. Licensed dental hygienists practice in accordance with provincial health care legislation.

4

Although dental hygiene duties vary from province to province, some of the functions routinely performed by dental hygienists include:

- examining and charting oral conditions
- exposing and processing dental x-rays
- removing plaque, stain, and calculus (tartar) from above and below the gumline
- applying decay preventing agents such as fluorides and fissure sealants to teeth
- plaque control instruction and development of individualized oral hygiene program for home care
- analysing and counselling in dietary matters
- educating individual patients, the general public and special population groups (e.g. seniors, minority groups, handicapped persons) in oral health procedures
- planning and conducting dental health programs in the community

In some provinces, dental hygienists with additional education, may provide other

5

services such as administering local anaesthetic, placing and carving filling materials and additional periodontal procedures.

Dental hygienists work in a variety of practice settings including:

- private dental offices
- community clinics
- hospitals and chronic care facilities
- federal, provincial and municipal health departments
- armed forces
- correctional institutions
- research
- post secondary education



The Canadian Dental
Hygienists Association
L'Association Canadienne
des Hygienistes Dentaires

Permar's Oral Embryology and Microscopic Anatomy

Eighth Edition (Hard cover) 1988
Rudy C. Melfi
Lea & Febiger (distributed by the
C.V. Mosby Co. Ltd.) \$32.50 Can.

Author Rudy C. Melfi has developed a practical textbook that will be useful to students of dental hygiene and dental assisting. This eighth edition is a revised and updated version of previous editions and provides basic information regarding the development and structure of the oral tissues.

The book begins with a brief introduction to general histology. Tissue components are defined and the classification of tissues, as well as their locations and characteristics are listed.

Included in the chapter 'Embryonic Development of the Face and Oral Cavity' are summaries of the development of the oral structures. These summaries condense the information discussed in the chapter and serve as an excellent review for the reader.

Chapter three, 'Tooth Development' follows the progression of the stages of tooth development from the beginning of the tooth germ to root formation. Formation of enamel, dentin, cementum and the periodontal ligament as well as anomalies of tooth development are included. The chapters dealing with each specific structure are divided into the subheadings; location, composition and clinical importance. The caries process is discussed in the chapter 'Tooth Enamel'.

Bone and the alveolar process, oral mucous membranes, salivary glands and the gingiva are described according to their histologic structure. Bone growth, clinical aspects of bone reaction and the distribution and function of the salivary glands are outlined.

Tooth eruption is explained in an overview of eruptive movements, the mechanism of tooth eruption and the shedding process of the primary teeth. Also included in this section is a table listing the times of enamel matrix and dentin formation and the eruption times for the primary and permanent dentitions. The final chapter describes the temporo-mandibular joint according to its anatomy and the histologic composition of its parts.

The information in this book is presented in a concise, easy to read manner (by the use of simple language and sentence structure). The chapters are well planned and follow a logical sequence. The use of italics emphasizes important words and phrases. Numerous illustrations and photographs augment this textbook to aid the reader in the interpretation and understanding of the material. The author does not offer detailed accounts of the subject matter. References have been included in the footnotes and at the end of various chapters to aid the reader in acquiring additional information.

This textbook will no doubt find its way onto library shelves of dental hygiene and dental assisting schools where both students and instructors will appreciate its value.

Reviewed by
Diane Moore, S.D.T./R.D.H.
Instructor, Dental Hygiene
SIAST, Wascana Campus



Dental Hygiene Clinical Applications in Pharmacology

Nancy C. Snyder, R.D.H., M.Ed.
Lea & Febiger,
Philadelphia, PA, 1987
307 pages
\$22.50 U.S.

This text is written *by a dental hygienist for dental hygienists*. Nancy Snyder, Assistant Professor in the Dental Hygiene Education program at the University of Texas-San Antonio has done a superlative job of creating this self-study text. As the author states in the preface, students can concentrate on clinically relevant pharmacologic information. As a result, the process of wading through peripheral, nonessential content is eliminated.

This text is divided into four sections: GENERAL INFORMATION, DRUGS USED IN DENTAL/DENTAL HYGIENE PRACTICE, DRUGS THAT AFFECT DENTAL HYGIENE TREATMENT, AND SIMULATED CASE HISTORIES.

Each section is divided into modules. The modules include 1) a Rationale, 2) Objectives, 3) Study Questions, and 4) a Clinical Application Worksheet. Answer keys are provided for the study questions and clinical application worksheets at the end of each module.

The General Information section contains modules on Introductory Pharmacologic Principles, specifically prescription writing, drug references and drug legislation/regulation. Drug references and legislation is U.S. related, which can be a drawback to the Canadian hygienist. Module Two includes drug action, administration, absorption, and adverse effects.

Section Two pertaining to Drugs Used in Dental/Dental Hygiene Practice has modules on Autonomic and Antianxiety Drugs, Pain Control, Local Anesthesia, Treatment of Pain, Anti-infectives, and Pharmacologic Treatment of Oral Conditions.

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Section Three contains modules on Drugs Affecting the Cardiovascular and Endocrine systems, Antineoplastics, Antihistamines, Antiepileptics, Psychoterapeutics, and other miscellaneous drugs.

Section Four deals solely with simulated case histories covering material from all the modules. These case histories serve as a thorough method of reinforcement and feedback to the student, allowing for a transfer of knowledge to *practical* situations.

The study questions for each module relate to the general concepts covered in that module. The clinical application worksheet is a simulated health history with specific questions pertaining to *total* management, treatment planning and home care instruction. Placing these worksheets after each module prepares the student for the final section of the book which is entirely devoted to these simulated case histories.

The author rounds out each module with REFERENCES and FURTHER READING, effective tools for the student desiring more data or explanation.

The text contains many charts that consolidate data for easy access of information. Specific emergency protocol related to anginal attacks, epileptic seizures, syncope, anaphylaxis, as well as drug interactions are covered in their respective modules.

This text is ideal for dental educators, students and practicing clinicians. It is concise, organized and easy to understand and is specifically tailored to the practical needs of the dental hygienist. The author has utilized a variety of teaching techniques to accommodate the varied learning styles of hygienists. DENTAL HYGIENE CLINICAL APPLICATIONS IN PHARMACOLOGY is a valuable self-study tool that would be a definite asset in any practice setting.

Reviewed by:

Patricia L. Dray
A.A., G.D.H., B.Sc.D.H.
Instructor
Division of Dental Hygiene
University of Alberta ■

NO MALICE IN WONDERLAND

By Alice

Dear Little Red Riding Hood:

In the last issue of *PROBE*, Mother Goose told your sad story. I have been aware of your story every time you and Bo Peep and Humpty Dumpty have been unsuccessful on a day when I have been your examiner for the licensing exams.

I know you have had a good education with fine instructors and a variety of clinical experiences. Your instructors have judged you competent and almost all your classmates have passed.

I know what you go through on Exam Day. I've been through it too. The panic and terror of it remain to this day.

But exams are always a part of education. You've been through them every day in clinic. All the failures cannot be attributed to exam pressure or the examination process.

You don't have to sparkle that day. All you have to do is show me that you understand calculus detection and removal. If you can't do that with three examinations and at least six different examiners, then something must be wrong.

Why Bo Peep and Her Buddies Failed

Let me tell you why some of your classmates failed and perhaps why you did too.

Sly Fox

Your classmate, the Sly Fox, had beat the system throughout the program and it caught up to her during The Exam. I've seen a lot of

her type during all my years in education. There are a few simple rules:

- Sit there and wiggle the scaler according to the book. You'll get most of the calculus and sometimes you'll get it all.
- Never let anyone know that you don't know what you're doing or what calculus feels like.
- Never let your instructor see you scale. Pick up an explorer or rinse the patient's mouth whenever an instructor is in the vicinity.
- Never commit yourself to saying that all the calculus has been removed. The patient is always coming back for more fine scaling.
- Always have an excuse in case the instructor finds something (rough cementum, sensitive teeth, too much bleeding, patient has to leave etc.).
- Always smile, be charming and appear confident.

Everytime I looked at Foxy during The Exam, she was checking with the explorer or sharpening her instruments. I never had a chance to observe her scaling. I left the clinic for a while to give her some scaling time. Sometimes Foxes are sharp enough to get the work done and sometimes they fail.

Bo Peep

Poor Little Bo Peep. Unfortunately, she got stuck with the wrong patient. She has never had any experience working with this type of calculus and wasn't capable of removing it properly or knowing how much was left. She was much more comfortable with the calculus on her patient at the supplemental exam and she passed.

Cinderella

Cinderella is a "brain". She had the top marks in all her subjects and

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was intelligent enough to make it through clinic. But, she's not at her best working with her hands. She will probably pass the supplemental exam and go on to excel in one of the many areas that are opening up in Dental hygiene careers.

Snow White

The one-year program just wasn't long enough for Snow White. She has a lot of potential but she needs to take her time to develop new skills. She would have been fine in a two-year program.

Little Miss Muffet

Competition was Miss Muffet's enemy. In a system that evaluated and graded her constantly, she felt she couldn't afford to say "I need help".

Mary Mary

With today's economic restraints, the teacher: student ratio is not as good as we all would like it to be. Mary Mary wasn't doing as well as the others so got the extra help. Teachers can't devote as much time to students who don't appear to be having problems.

Mary Mary passed her supplemental exam. She let me know at the half-time check that she was having problems and we removed one particularly difficult tooth from her assignment. She completed most of the assignment and carefully noted the remaining calculus, I had been able to observe her scaling technique and knew that she understood scaling and calculus detection.

Little Red Riding Hood

Perhaps, Little Red Riding Hood, the reason for your failure may be the saddest one of all. You're perfectly competent but you go to pieces at The Exam and are overcome with stage fright.

You waited so long to get into your program and you worked so hard. You endeared yourself to your patients and instructors with your dedication and determination. But on Exam Day, you panicked. Those representatives of the Big Bad Wolf, these strangers who don't know how hard you have worked, are going to judge you and decide your

fate. You can't think and your hands won't work. You fail. You are so frightened of the supplemental exam that it happens again. By the third try, you know you are not capable of even trying.

Examination Day

And so, Little Red Riding Hood, on Exam Day I knew nothing about you, your problems or your background. Most of your buddies passed, but a few did not.

Throughout The Exam, you never gave me any indication that you were having a problem. You had left several areas of calculus and had not noted it. I used one of your scalers and found that the calculus was reasonably easy to remove. Your patient and assignment were equivalent to the others.

What am I to do?

If my dentist-partner were looking at you as a potential employer, he would not hire you.

I think about the level of competence of all the candidates and students I've seen over the years. I think about the coming autonomy of Dental Hygiene and changes in supervision. I think about the rights of the public and Dental Profession

to expect an acceptable minimum standard.

You didn't measure up to these standards today, for whatever reason. It's not an easy decision to make. Every candidate has come from a school where her instructors have judged her to be competent.

Sometimes a candidate may fail who should have passed and it doesn't seem fair. But that's life and the Licensing Exams are still a part of Dental Hygiene in our province. What a triumph it will be when we can end The Exams because all candidates are passing. But, that hasn't happened yet.

I don't know if the problem lies with the examination process, the education system or within the candidates themselves.

Perhaps if Mother Goose could see the clinical results of some candidates, she would not want them to be licensed to practice her profession.

And thank you, Mother Goose, for reminding all of us as examiners, that there are a lot of Little Red Riding Hoods and that we must be fair and compassionate when making a decision that affects the future of so many lives. ■

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INDICATIONS: Adjunctive treatment for the maintenance of good oral hygiene, control of dental plaque and the reduction and inhibition of gingivitis.

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PRECAUTIONS: It is possible that Viadent Anti-Plaque preparations may interact chemically with other orally applied drugs, although no such drug interactions have been reported to date. Routine swallowing of the product is not recommended.

Staining of dental restorations does not appear to be a problem with Viadent preparations. In laboratory testing with the rinse, only one light-cured composite, Durafil-Kulzer, was slightly yellowed after immersion in the rinse for 24 hours.

Use of Viadent Anti-Plaque preparations is not recommended in pediatric oral health programs due to the alcohol content in the rinse and for the toothpaste, when caries is the principal dental disease and for which a fluoride product is indicated.

The safe use of Viadent Anti-Plaque preparations during human pregnancy and lactation has not been established. As with any drug, use during pregnancy or lactation requires that the expected therapeutic benefit of the drug be considered against the unknown risks to the mother, foetus or neonate.

DOSAGE AND ADMINISTRATION: Viadent Anti-Plaque Oral Rinse: Administer after brushing morning and evening. Rinse twice consecutively using 15 mL per rinse for 15 seconds each time.

Viadent Anti-Plaque Toothpaste: Administer as a ribbon of paste on a toothbrush morning and evening.

SUPPLIED: Viadent Anti-Plaque Oral Rinse: Bottles of 500 mL.
Viadent Anti-Plaque Toothpaste: Tubes of 50 mL, 100 mL.



A decade of studies sheds new light on caries.

During the last decade, many studies have shown that the relative cariogenicity of foods is not related simply to carbohydrate content.^{1,2}



IN 1981, TESTS CARRIED OUT BY BIBBY³ SHOWED THE SPEED AT WHICH A FOOD OR DRINK CLEARS FROM THE MOUTH ASSOCIATED WITH ITS POTENTIAL CARIOGENICITY.

Contrary to previous opinion, stickier foods such as caramels and chocolates tended to clear from the mouth faster than foods not generally associated with stickiness such as bread and crackers.

This may be because milk chocolate and caramel contain soluble sugars which can be washed away more rapidly by saliva compared to bread which will not disperse easily and will adhere longer to the teeth.

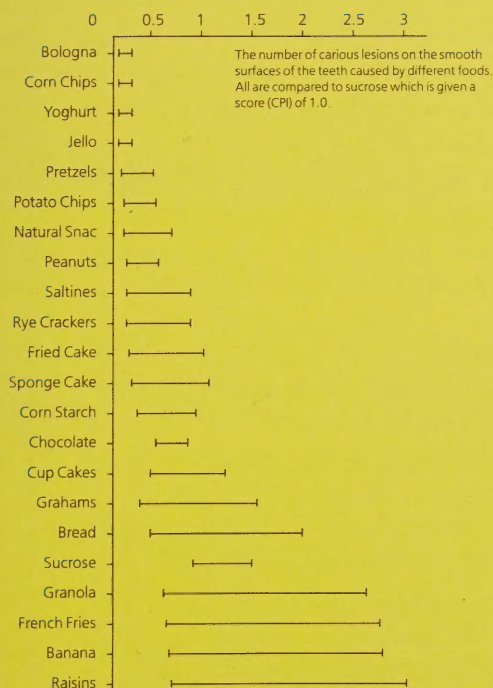
Amount of
carbohydrates
retained at three
intervals

Food	5 min	15 min	30 min
White bread	16.1 mg	10.0 mg	3.6 mg
Sponge cake	18.8	6.0	4.2
Chocolate milk	7.4	3.8	1.9
Raisins	16.8	5.7	3.0
Potato chips	12.3	4.9	2.5
Caramel	19.0	4.2	2.5
Cracker			
(oil sprayed)	23.8	8.5	3.7
Milk chocolate	19.0	6.8	3.0
Sugared soft drink	6.3	2.4	2.1
Hard mint	31.9	9.4	2.5
Cracker (plain)	33.6	10.4	3.3

Showing amount of carbohydrate remaining in the mouth
after an average portion has been eaten.¹⁰

IN 1985, MUNDORFF ET AL⁴
EVALUATED THE CARIES POTENTIAL
OF A VARIETY OF FOODS. The results showed
that confections were no more cariogenic than
foods previously considered "safer for your
teeth" such as wheat flakes and raisins.

Caries Potential Index CPI



Mundorff et al cariogenicity study.



**IN 1986, A STUDY ON "ORAL FOOD
CLEARANCE AND THE pH OF PLAQUE
AND SALIVA"⁵** concluded that "Foods with
higher content of sugar were removed more
rapidly and depressed the pH of the plaque for a
shorter period of time than did starchy foods
containing less sugar".



**CONFECTIONS IN A NEW LIGHT....
MOST FOODS CONTAIN FERMENTABLE
CARBOHYDRATES AND ARE A POTENTIAL
CAUSE OF TOOTH DECAY.** While confections
are no exception, they are simply no better or
worse than any other such foods. Advances in
caries prevention through flourides and
improved oral hygiene continue to reduce the
likelihood of dental caries. Confections,
consumed within the confines of a well balanced
diet and regular dental care need not be
discouraged. For additional information, write to
the Confectionery Manufacturers Association
of Canada.

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3. Bibby B.G. (1981). Foods and dental caries. Food, Nutrition and Dental Health, 1:257-278
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Confectionery Manufacturers Association of Canada



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Dental Hygienists (2 positions - 1 bilingual)

You will be responsible to provide dental public health services to the community in accordance with legislation and Regional Health Committee protocol and policies. This will involve organizing and conducting dental education programs, referring patients in need of dental treatment, providing dental cleaning and inspection services and encouraging dental hygiene awareness through the distribution of pamphlets and supplies.

To qualify, you must possess a licence from the Royal College of Dental Surgeons of Ontario or be eligible to write the Ontario Board exams (expenses to be reimbursed conditional on a one year commitment). Having kept abreast of current issues and technical advances in the field of public health dentistry, you are prepared and able to conduct educational programs and have a general knowledge of community organizations and resources. You must also have the use of a vehicle.

We offer a salary ranging from \$25,385 to \$30,878 and a comprehensive package of benefits.

Interested candidates are invited to forward a confidential résumé to:

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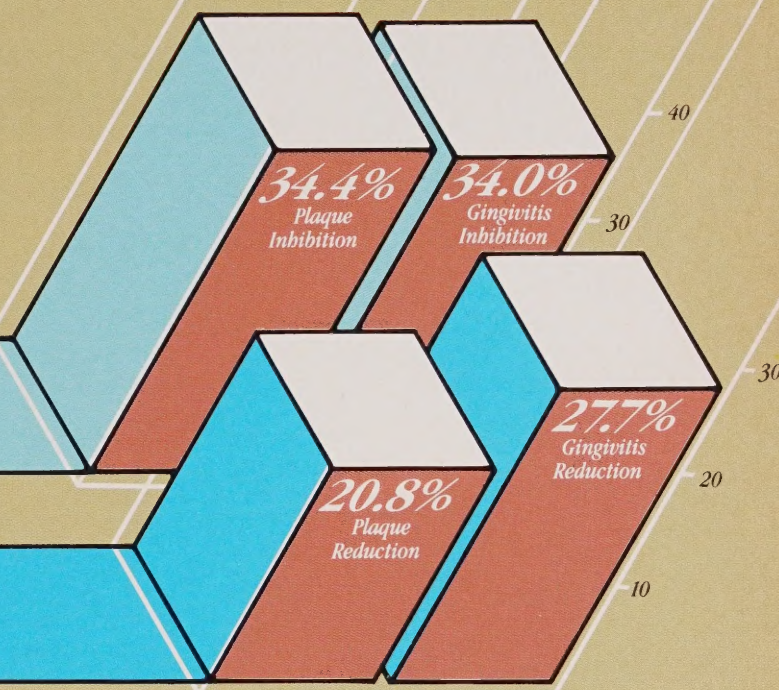
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**Helps Prevent
Plaque and Gingivitis¹**

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Plaque and Gingivitis²**



Plaque measurements were made using the Turesky Modification of the Quigley-Hein Index,³ gingivitis measurements using the Modified Gingival Index.⁴

NO REPORTS OF CLINICAL SIDE EFFECTS, EVEN WITH REGULAR AND LONG-TERM USAGE:

- Did not cause extrinsic tooth stain
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Instruct your patients to rinse for 30 seconds with 20 ml of Listerine twice a day in addition to brushing, flossing, and regular dental care.

DESTROYS A BROAD SPECTRUM OF PLAQUE BACTERIA*

Plaque Microorganisms Susceptible to Listerine Antiseptic	
Gram-Positive Facultative Cocci	<i>Streptococcus sanguis</i> <i>Streptococcus mutans</i> <i>Streptococcus salivarius</i>
Gram-Positive Facultative Rods	<i>Lactobacillus acidophilus</i>
Gram-Positive Anaerobic Rods	<i>Actinomyces viscosus</i>
Gram-Negative Anaerobic Rods	<i>Bacteroides intermedius</i> <i>Fusobacterium nucleatum</i> <i>Leptotrichia buccalis</i>
Yeasts	<i>Candida albicans</i>

*in *in vitro* testing

Listerine contains a proven combination of thymol, eucalyptol, methylsalicylate and menthol in a hydroalcoholic vehicle. These antimicrobial ingredients are active against the plaque microorganisms commonly associated with gingivitis.

1. DePaola LG, et al: Chemotherapeutic inhibition of supragingival plaque and gingivitis development. *J Dent Res* 65:274(Abstract 941), 1986.

In this six-month, double-blind study, twice-daily use of Listerine Antiseptic with regular oral hygiene following professional prophylaxis inhibited the development of both supragingival plaque and gingivitis by 34% compared to the hydroalcoholic control¹

	Listerine	Control
Plaque Index	1.15	1.75
Gingival Index	0.92	1.39

2. Lamster TB, et al: The effect of Listerine Antiseptic on reduction of existing plaque and gingivitis. *Clin Prev Dent* 5:12-16, 1983.

This six-month, double-blind study demonstrated the efficacy of twice-daily use of Listerine in reducing plaque and gingivitis. Scores measured a 20.8% reduction in supragingival plaque and 27.7% reduction in gingivitis in the Listerine group—a significant improvement over normal oral hygiene alone for the Listerine group versus the vehicle control²

	Listerine	Control
Plaque Index	1.93	2.44
Gingival Index	1.20	1.66

3. Turesky S, et al: Reduced plaque formation by the chloromethyl analogue of Vitamin C. *J Perio* 41:41-43, 1970.
4. Lobene RR, et al: A modified gingival index for use in clinical trials. *Clin Prev Dent* 8:3-6, 1986.

WARNER LAMBERT

*Caution: Do not give to children under 6. Active Ingredients: Alcohol 21.90% w/v, Eucalyptol 0.91% w/v, Thymol 0.063% w/v, Menthol 0.042% w/v.

PAAB
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"Listerine has been shown to help prevent and reduce supragingival plaque accumulation and gingivitis when used in a conscientiously applied program of oral hygiene and regular professional care. It has not been shown to have a therapeutic effect on periodontitis."

COUNCIL ON DENTAL THERAPEUTICS
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Charlottetown, P.E.I.
C1A 1K6
Ph: (902) 566-1515 (bus)
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V4M 2B2

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Our dental team is seeking a hygienist with these attributes for our progressive office. We would like a colleague who is bright, enthusiastic, open and caring. We value superior organizational and communicative skills, and we seek a high level of quality involvement with our patients. We believe in working in a fun atmosphere with opportunity for financial gain. Please reply to:
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Only Butler® Tapers, Satinizes and Rounds* Toothbrush Bristles For Effective Plaque Removal†



Take a close look — you be the judge!

Unretouched microphotographs of leading toothbrushes show that while some have rounded bristles, none is tapered and satinized like Butler.

Butler G-U-M® #411

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Tapered Bristle

Satinized Bristle

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Bristle Design Is Important

With any toothbrush it's the bristles that actually remove the plaque.

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Only Butler provides all three bristle processes for more effective plaque removal. It's because we take this extra care that a Butler toothbrush is a more effective brush for your patients.

*C. Mark Gilson, DDS, MS; Gerald T. Charbeneau, DDS, MS; and H. Charles Hill, DDS. All members of the faculty of the University of Michigan School of Dentistry — A comparison of physical properties of several soft toothbrushes.

†Dr. Harald Löe, Director, National Institute of Dental Research — Principles of aetiology and pathogenesis governing the treatment of periodontal disease.

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This advertisement has been reviewed for compliance with the advertising standards of the ADA

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John O. Butler Company

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Guelph, Ontario N1K 1C7
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Your fight for improved dental health is our fight too. Crest was the first cavity fighting toothpaste to put fluoride into demineralized areas, and was also the first with patient support programmes. Through its Preventive Dentistry message, Crest has always supported your efforts to inform your patients about better dental care.

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PROBE

volume 22 no. 4

December 1988 décembre

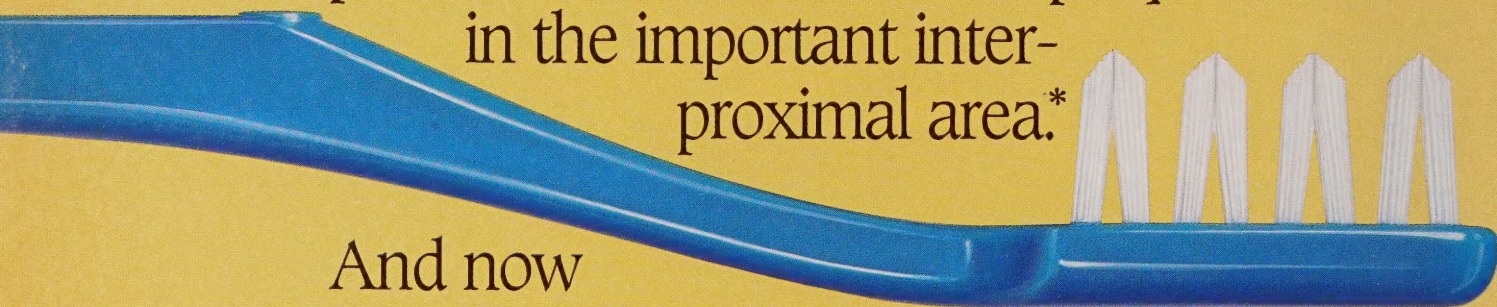


The cover features a large, grainy, black and white photograph of a woman's face, looking upwards with a slight smile. A small, rectangular inset in the upper center shows a bright blue sky with white clouds. In the lower right foreground, three pocket watches are stacked, with their rings and hands visible. Thin black lines connect the rings of the watches to the woman's eyes, suggesting a connection between time and perception. A yellow banner is positioned to the right of the watches.

**HYPNOSIS
IN DENTISTRY**

A new version of the Jordan V Tuft advantage, clinically proven to remove more plaque.

Conclusive evidence from clinical studies has shown that the Jordan V tuft soft toothbrush provides the most effective plaque removal in the important inter-proximal area.*



And now that advantage is available in a new version – the Jordan Compact V, specially designed to allow patients with a smaller dental arch to reach all surfaces of their teeth comfortably.

Like all Jordan toothbrushes, the Compact V has an extra long handle and slim, spoon-shaped neck, to provide a balanced grip, better brushing control and easy access to the posteriors.

With the addition of the new Compact V, the Jordan family of plaque fighters is now complete.

THE PLAQUE FIGHTERS

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NEW COMPACT V (SOFT)

JORDAN JUNIOR V (SOFT)

Jordan*

*Reg. T.M.

Cleaner teeth. Guaranteed.

For further information write to
"The Jordan Toothbrush",
c/o Frank W. Horner Inc., P.O. Box 959, Station "A",
Montreal, Quebec H3C 2W6.

*"Evaluating cleaning efficiency of different toothbrush designs and textures". Sam L. Yankell et al., University of Pennsylvania, J. Soc. Cosmet. Chem. (May/June, 1983)
"Access to interproximal tooth surfaces by different bristle designs and stiffness of toothbrushes." Per Nygaard-Ostby et al., Jordan, Oslo, Scand. J. Dent. Res. 1979.

"An in vitro study of the relative effectiveness of toothbrush cleaning/coverage." Sam. L. Yankell, University of Pennsylvania, J. Dent. Res. 1979.
"Role of brushing technique and toothbrush design in plaque removal." Axel Bergenholz et al., University of Umea, Scand. J. Dent. Res. 1984.

Fran Cotton
Editor



Let's Say It as We Mean It

Many times what we say and the way we say it makes an impact on the listener that was not intended by the speaker. The use of language in our society is such that specific words take on certain meanings not necessarily those of the definition in the dictionary. We perceive words with our minds as we perceive shades of colour through our eyes. The Oscar winning movie "My Fair Lady", starring Rex Harrison and Audrey Hepburn, illustrated how central the use of language is to our very acceptance and status in the social strata. The same can be said of dental hygiene. For the roles of the future, much of the current language is old fashioned and stifling.

Language is as important in professional relationships as is attitude. In fact, much of the language we choose reflects how we feel about a specific topic or issue. How we define ourselves is far more critical than how others define us; for ultimately, how we feel about ourselves influences how others perceive us. If we use the term 'professional' and accept the responsibilities inherent in this concept, then we as a group have a better opportunity to be respected as professionals. If we define ourselves as auxiliaries, a term that means appendage, then we will be an appendage; but if we perceive and refer to ourselves as colleagues with a key contribution to make to oral health, we are in a position to work towards our goal of collaborative practice. Another example is use of the term 'dental personnel' in a collective sense when more correctly it refers only to dentists. The term 'dental health personnel' includes dentists, dental hygienists, dental assistants and other related occupational groups. Its use is consistent with the collaborative practice model.

Previous Terms and Perspectives

dental auxiliary

duty
training
dental team
dental care
cleaning - where instrumentation is involved
job-oriented
prevention

1980's and 1990's Terms and Perspectives

dental health professional - or specify
dental hygienist, dental assistant or
dental therapist
function
education
dental health colleagues
dental health services
oral prophylaxis (general term); scaling
and/or root planing (explicit term)
career-oriented
wellness and health promotion

Some misunderstanding may arise following a shift in perspective or philosophy. In health services, the new perspective is wellness and health promotion, of which education and preventive services are a part. There is also the societal shift, particularly among women, from a job-oriented to a more career-oriented perspective. New perspectives require the use of appropriate language. Misunderstandings often occur when the issue of supervision is addressed. Certain factions within the dental community feel that changes in the regulations concerning supervision will fragment dental health services. This is not necessarily true, but is a perception that occurs when words are confused or used inappropriately.

One of the words that appears to have created problems for dental hygienists over the years is the word 'training'. While there may be elements of training (skill development) within our learning process, dental hygienists definitely receive a comprehensive 'education' in preventive-oriented dental health services. Education implies a broader spectrum of knowledge and application than does training; the latter term emphasizes learning by repetition, not necessarily accompanied by understanding. When discussing our preparation for the practice of dental hygiene, the word education accurately reflects the rigorous standards we all had to achieve, and those we seek to maintain.

Just as we incorporated the locator terms 'mesial' and 'distal' into our vocabulary, so can we incorporate definitive terms regarding our roles. Let's try them, use them, encourage others to use them! Let's say it as we mean it!! ■

Fran Cotton, Editor R.D.H.,
B.Sc.D., M.Ed.
Pat Johnson R.D.H., B.Sc.D., M.Sc.

"Pat Johnson is resource person to the CDHA Task Force on the Future of Dental Hygiene Education and Practice and a member of the federal Working Group on the Practice of Dental Hygiene."

A World Of Reasons To Use Trident With Xylitol To Help Fight Cavities.

We can give you a world of reasons to use Trident with xylitol as a pro-active addition to your patients' comprehensive cavity-fighting programs.

Those reasons are field trials conducted all around the globe that consistently show xylitol, the natural source sweetener, is an effective weapon in the fight against tooth decay.

Here is a brief summary of key studies.

MONTREAL, 1985-87: Caries Reduction

A 65% reduction in caries was achieved in a group of 274 children aged 8-9 given xylitol gum t.i.d.; compared to the same age group not given the gum. Both groups received identical preventive dental care throughout the study.

FINLAND, 1982-87: Long-Lasting Benefits

A 30-60% reduction in new caries was seen in a 2-year study comparing 172 children aged 11-12 given xylitol gum; to a control group of 152 children not receiving the gum. When continued for a third year, an overall 73% reduction was achieved.

HUNGARY, 1981-84: Xylitol VS. Fluoride

A 43% reduction in caries was achieved in children aged 6-11 who received xylitol in confectionery products; compared to 2 other groups using systemic fluoride in dentifrices or milk and water, respectively.

MICHIGAN, 1988: Reduction in Plaque

Three groups of students chewed 10 pieces of gum each per day, sweetened with xylitol, sorbitol or a xylitol/sorbitol mixture respectively. Two weeks later, the xylitol and xylitol/sorbitol groups showed a decrease in plaque from baseline values; the sorbitol group showed an increase.



did not contain xylitol.

Trident and Today's Dentistry

We are certain you will conclude from the evidence being gathered around the world that Trident with xylitol, used with proper oral hygiene practices, can help reduce tooth decay significantly. Trident is particularly useful after snacking, when access to a toothbrush or dental floss may be inconvenient.

We invite you to participate in our professional sampling program and recommend Trident as an aid in cavity prevention. With Trident's great, long-lasting flavours*, your patients have every reason in the world to comply with your advice.

*Spearmint flavour does not contain xylitol.

For more data on Trident with xylitol, such as abstract reprints or case studies, write to: Xylitol Information, Warner-Lambert Canada Inc., 2200 Eglinton Avenue East, Scarborough, Ontario M1L 2N3

FR. POLYNESIA, 1981-84: Sugar Substitution

Partial sugar substitution precipitated a 37-39% reduction in caries when 273 children given xylitol-sweetened between-meal snacks were compared to a control group whose snacks



Another Reason To Use Trident With Xylitol: You Save 60% On Patient Samples!

Please send me the following Trident patient sample packs, each containing 10 boxes (maximum order, 5 sample packs):

- ☐ x Trident Assortment (Peppermint, Freshmint, Cinnamon, Fruit, and Bubble Gum)
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- ☐ x Trident Freshmint
- ☐ x Trident Bubble Gum
- ☐ x Trident Peppermint
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Send to: Trident Professional Plan, P.O. Box 290, Station A, Scarborough, Ontario M1K 9Z9. Please allow 4-6 weeks for delivery. Offer valid until June 30, 1990.

The price of each sample pack is \$40.00 (each contains 180 packages — regular value, \$99.00). Please add applicable P.S.T. (per pack: B.C. \$2.40; Sask. \$2.80; Man. \$2.80; Ont. \$3.20; P.Q. \$3.60; N.B. \$4.40; P.E.I. \$4.00; N.S. \$4.00; Nfld. \$4.80). Enclosed please find my cheque or money order payable to Trident Professional Plan in the amount of \$_____

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The Canadian Dental Hygienists' Association Journal: Probe is the official publication of C.D.H.A. C.D.H.A. invites submission of original research, discussion papers, and statements of opinions pertinent to the dental hygiene profession. All manuscripts are refereed anonymously. Contributions to Probe do not

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PRESIDENT'S MESSAGE

Ellen Williams,
President, C.D.H.A.



Congratulations, you did it! You made it a success!

The National Dental Hygiene Campaign for 1988, the first ever campaign of its kind can now be considered a success. This project involved everyone from coast to coast! It gave us, as hygienists, the opportunity to become involved in a common area that we share, that of dental hygiene and the oral health of all Canadians. It also gave us an opportunity to go out into our own communities, meet with fellow hygienists that we may not have had an opportunity to work with on another basis. For this program to have been declared a success, we had to be able to say that the grassroots hygienists took part in it. And, as many of you realize this in fact was the case. There were a wide range of projects many of which were unique to the community that they were held in.

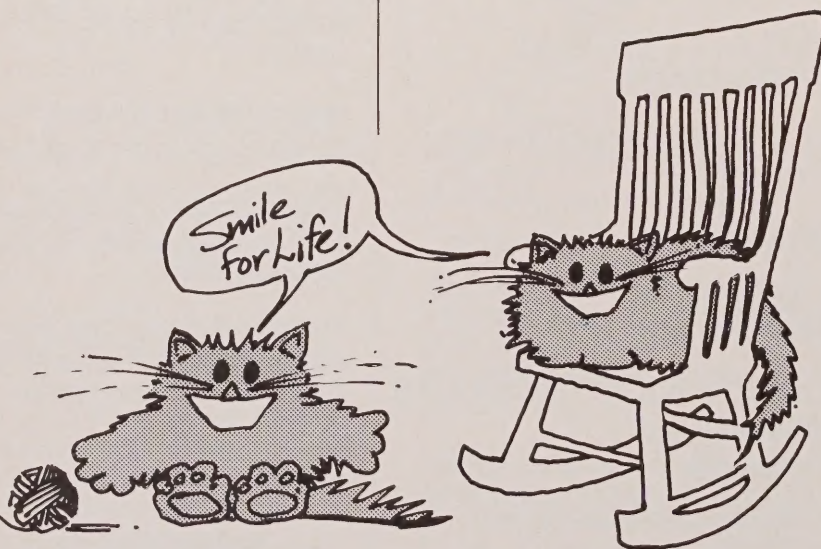
Many of you, for the first time actively participated in a C.D.H.A. project, and also, helped on a community level. It has long been established that one of the roles of a dental hygienist is to educate the public regarding oral health. Through the projects that were undertaken by you this in fact has been accomplished. There are many people who deserve special thanks. First on our list is Frank W. Horner. It is through their generosity that National Dental Hygiene Week became a reality. Along with them I would like to give special thanks to Eleanor Brownridge, HBB & Associates and Audrey Newcombe, C.D.H.A. Public Relations Officer for their planning, development and public relations activities for the campaign. All these tributes however, would be very hollow if you had not seen fit to initiate

the projects, carry them through, and succeed. For this, a very special thanks, and congratulations on that success. We have proven that we as hygienists, and through C.D.H.A., can work together to achieve common goals now and in the future. ■

Dates to Remember

1989

- June 7-14 ■ American Dental Hygienists' Association Annual Session Boston, Mass. U.S.A.
- June 24-25 ■ Canadian Dental Hygienists' Association Board of Directors Meeting, Ottawa, Ontario
- June 28-July 1 ■ 11th International Symposium on Dental Hygiene Ottawa, Ontario
- October ■ National Dental Hygiene Week Canada and U.S.A.



NATIONAL DENTAL HYGIENE CAMPAIGN

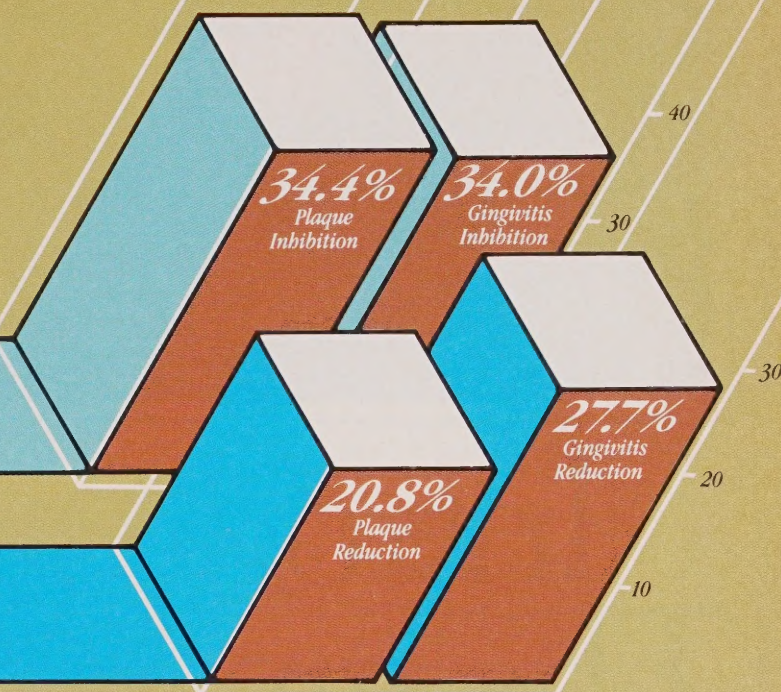
THE FIRST NON-Rx ANTIMICROBIAL ACCEPTED TO HELP CONTROL SUPRAGINGIVAL PLAQUE AND GINGIVITIS

PERCENT REDUCTION OF PLAQUE AND GINGIVITIS SCORES: LISTERINE® VS. CONTROL FROM BASELINE TO 6 MONTHS

**Helps Prevent
Plaque and Gingivitis¹**

**Reduces Existing
Plaque and Gingivitis²**

Plaque measurements were made using the Turesky Modification of the Quigley-Hein Index,³ gingivitis measurements using the Modified Gingival Index.⁴



NO REPORTS OF CLINICAL SIDE EFFECTS, EVEN WITH REGULAR AND LONG-TERM USAGE:

- Did not cause extrinsic tooth stain
- Did not promote calculus formation
- Did not cause mucosal aberrations
- Did not alter taste perception
- Did not promote microbial resistance

Dosage and Administration:

Instruct your patients to rinse for 30 seconds with 20 ml of Listerine twice a day in addition to brushing, flossing, and regular dental care.

DESTROYS A BROAD SPECTRUM OF PLAQUE BACTERIA*

Plaque Microorganisms Susceptible to Listerine Antiseptic	
Gram-Positive Facultative Cocci	<i>Streptococcus sanguis</i> <i>Streptococcus mutans</i> <i>Streptococcus salivarius</i>
Gram-Positive Facultative Rods	<i>Lactobacillus acidophilus</i>
Gram-Positive Anaerobic Rods	<i>Actinomyces viscosus</i>
Gram-Negative Anaerobic Rods	<i>Bacteroides intermedius</i> <i>Fusobacterium nucleatum</i> <i>Leptotrichia buccalis</i>
Yeasts	<i>Candida albicans</i>

*In vitro testing

Listerine contains a proven combination of thymol, eucalyptol, methylsalicylate and menthol in a hydroalcoholic vehicle. These antimicrobial ingredients are active against the plaque microorganisms commonly associated with gingivitis.

- DePaola LG, et al: Chemotherapeutic inhibition of supragingival plaque and gingivitis development. *J Dent Res* 65:274 (Abstract 941), 1986.

In this six-month, double-blind study, twice-daily use of Listerine Antiseptic with regular oral hygiene following professional prophylaxis inhibited the development of both supragingival plaque and gingivitis by 34% compared to the hydroalcoholic control!

	Listerine	Control
Plaque Index	1.15	1.75
Gingival Index	0.92	1.39

- Lamster IB, et al: The effect of Listerine Antiseptic on reduction of existing plaque and gingivitis. *Clin Prev Dent* 5:12-16, 1983.

This six-month, double-blind study demonstrated the efficacy of twice-daily use of Listerine in reducing plaque and gingivitis. Scores measured a 20.8% reduction in supragingival plaque and 27.7% reduction in gingivitis in the Listerine group — a significant improvement over normal oral hygiene alone for the Listerine group versus the vehicle control!

	Listerine	Control
Plaque Index	1.93	2.44
Gingival Index	1.20	1.66

- Turesky S, et al: Reduced plaque formation by the chloromethyl analogue of Vitamin C. *J Perio* 41:41-43, 1970.
- Lobene RR, et al: A modified gingival index for use in clinical trials. *Clin Prev Dent* 8:3-6, 1986.

WARNER LAMBERT

*Caution: Do not give to children under 6. Active Ingredients: Alcohol 21.90% w/v, Eucalyptol 0.91% w/v, Thymol 0.063% w/v, Menthol 0.042% w/v.

PAAB
CCPP

"Listerine has been shown to help prevent and reduce supragingival plaque accumulation and gingivitis when used in a conscientiously applied program of oral hygiene and regular professional care. It has not been shown to have a therapeutic effect on periodontitis."

COUNCIL ON DENTAL THERAPEUTICS
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LISTERINE®

...First-line antimicrobial defense for your patients.

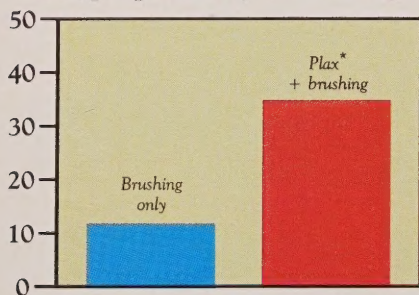


An archaic Middle Eastern toothbrush, the *siwak* (or *misswak*) is made from a water-soaked twig of the *Salvadora persica* tree. The *siwak*'s inherent benefits to the teeth and gums were first recognized by Muhammad who decreed its ritual use to all Muslims.

Introducing Plax®. The greatest advance in home dental care since the *siwak*.

The age-old problem of plaque removal has a new solution. Plax®. The only dental rinse designed specifically to remove plaque.

Removes 3 times more plaque than just brushing.¹



In hard-to-brush areas, the improvement over regular brushing was even more dramatic with Plax®.¹

Formulated from trusted ingredients.

Plax® is considered to be exceptionally safe even in "exaggerated use" circumstances.² When test subjects greatly exceeded its recommended use,[†] there were no signs of tissue sensitivity or damage to tooth enamel.²

Recommend Plax® and encourage compliance.

Pleasant-tasting and convenient, Plax® is easily incorporated into your patients' daily oral health care regimen.

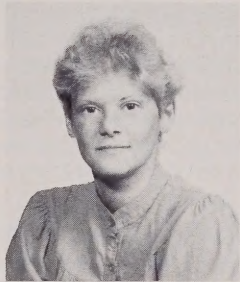
For best results, patients should rinse with 1 tablespoon (15 mL) of Plax® for 30 seconds *before* brushing with their regular dentifrice.

New Plax®. The anti-plaque, pre-brushing rinse that is making dental history.



Checks Plaque Between Checkups.

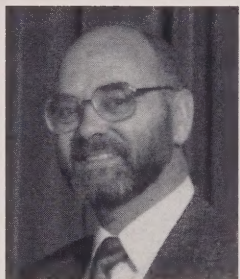
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Ellen Brownstone
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President
Ellen Williams
Ontario



President-elect
Henry King
B.C.



Secretary
Sadie Hearn
Ontario

Executive Travel

- Sept. • Mr. Henry King, President-elect attended a CDA Third Party Dental Plans meeting in Toronto.
- Oct. • Ms. E. Williams, Ms. S. Hearn, Ms. Worobey attended an Executive Council meeting in Toronto.
- Nov. • The first of two strategy planning sessions scheduled for this membership year was held in Winnipeg. Members of Executive Council and central office participated in the session which was facilitated by Sheryl Feller.



INAUGURATION DE LA SEMAINE NATIONALE DE L'HYGIÈNE DENTAIRE

Dans l'ordre habituel, l'Adjuc Brisebois, hygiéniste senior et l'un des directeurs de l'Association Canadienne des Hygiénistes Dentaire, l'Adj R. Richer Lafleche et le Sgt. J. Gagné, aussi hygiénistes dentaires, et le Lcol Boulanger, Cmdt du détachement dentaire de Valcartier.

National dental hygiene week

For the first time in its 25 year history the Canadian Dental Hygienists Association has proclaimed a National Dental Hygiene Week. The period 16-22 October 1988 has been selected to be most appropriate for that matter. The Canadian Forces Dental Services totally supports this significant event, aimed at emphasizing the importance of dental hygiene for the Canadian population. The Canadian Forces has long recognized the importance of dental fitness for its personnel. In 1968, a preventive dentistry program was introduced, with emphasis placed on education since it is the first step of any form of prevention. This important educational role was mainly assigned to the dental hygienists.

Dental hygiene in the civilian population is no less important, but because of several factors like financial matters, population distribution, and availability of dental care, etc., its promotion becomes more complex; consequently, the role of the civilian dental hygienist is more difficult. A National Dental Hygiene Week is a means for all hygienists to promote good dental health. The theme "hygienists helping people" is most appropriate because as military and civilian dental hygienists it expresses our wish that all people will enjoy good dental health and, because of it, have a smile for life.

For more information on the success of National Dental Hygiene Week watch for the "Explorer", coming soon.

University of Montreal

Through my various readings, I keep coming across the statement that there are two degree programs in Canada – one at the University of Toronto and one at the Université de Montréal. As a Montreal dental hygienist and as a Quebec dental hygiene educator, I would like to clarify this misconception. The baccalaureate program in dental hygiene has been terminated for many years, since 1979, at the Université de Montréal. Université de Montréal presently offers a certificate (30 credits) for hygienists – not a baccalaureate degree.

Presently there are twenty-one part-time students and three full-time students enrolled in the program (to increase in 1988-89). Classes are offered in the morning, afternoon, and evening. If one attends full-time, the certificate can be obtained in one year (two semesters); it should take three years if one participates on a part-time basis. Although dental hygiene courses are not offered in the summer, this gives the opportunity to take the elective courses. To complete the certificate one must obtain thirty credits (each credit is fifteen hours). Fifteen are required, nine credits are optional, and six credits are electives. If one wishes Continuing Education in one area, there are allowances to take courses without formally following the certificate program, but you are expected to write the exams. In addition, non-dental professionals could enroll in the courses as electives in other programs (i.e. a nurse could take a course as part of a community health certificate). However, to take the clinical course one must be licensed to practice Dental Hygiene. This is useful for dental hygienists who work for the government in community, educational, or institutional settings, because by obtaining *three* 30 credit certificates (i.e. dental hygiene, community health, education, gerontology, etc) one is then granted a Bachelor's degree in either Arts or Sciences. Two certificates in Science and one in Arts (i.e. dental hygiene, community health, and education) gives a BSc, while two certificates in Arts and one in Sciences gives a B.A. These certificates can be taken anywhere as long as equivalences are accepted; the last institution attended confers the degree.

For further information contact (in English or French)

Chantal Codere (514) 343-6076
Faculté de Médecine Dentaire
Université de Montréal
C.P. 6128 Succursale A
Montréal, Québec H3C 3J7
Canada.

Mouth infections can be a sign of AIDS

At the Annual Meeting of the American Academy of Periodontology, Sol Silverman Jr., MA, DDS, discussed five mouth disorders that occur frequently in AIDS patients and persons infected with human immunodeficiency virus (HIV). And while some of these conditions routinely appear in persons who have not been exposed to HIV, "it is important to ask appropriate questions in a sophisticated, sensitive, non-accusatory manner," Silverman said.

A professor and chairman of oral medicine at the University of California at San Francisco School of Dentistry, Silverman gathered his information as head of an oral medicine clinic treating more than 3,000 patients each year referred by community dentists and physicians.

"While there is no way to estimate the percentage of AIDS patients and HIV-infected persons who have oral manifestations, I would say the percentage is high and escalating," he concluded, based on the number of patients seeking treatment for oral symptoms in dental offices and clinics.

According to Silverman, the oral lesions include:

• Kaposi's Sarcoma.

This form of cancer appears chiefly as purplish spots on the skin. In a recent study, Silverman has documented that of 375 homosexual males, more than half of the Kaposi's patients had evidence of this cancer in their mouths; and in 10 percent of patients, this was the only site. Kaposi's sarcoma occurs in about 20 percent of all AIDS patients.

• Hairy Leukoplakia.

Characterized by white hair-like patches resembling a fungal infection, this disorder occurs primarily on the sides of the tongue. Silverman stressed the importance of accurate diagnosis because nearly all patients who have the disorder are infected with the AIDS

virus, can transmit the virus and will most likely develop AIDS within 30 months.

• Candidiasis.

This is the most frequent mouth infection associated with the AIDS virus. Present in more than half of all AIDS and HIV-infected patients, the fungal disorder can appear as white and red spots anywhere inside the mouth. It can cause sore throats, altered taste, bad breath and difficulty in swallowing.

• Herpes Simplex Virus.

Very common and becoming more frequent in HIV-infected and AIDS patients, herpes infections can appear primarily as cold sores on the lips and as "erosive-like" lesions anywhere inside the mouth.

• Periodontal Diseases.

Mild, moderate and severe forms of gum disease are showing up uncharacteristically early in people between the ages of 20 and 40, when it usually develops in people who are much older. A young individual with gum lesions or bone loss might be HIV-infected. The virus attacks the victims' protective immune systems, leaving them with little resistance to fight infections. This includes a diminished ability to keep bacteria in the mouth from multiplying and leading to periodontal disease.

Silverman advises individuals to see a dentist if they have any of the signs or symptoms described above since these changes may represent immune suppression.

There is little risk for dentists and hygienists who take precautions when treating AIDS patients, Silverman said. He points to infectious disease guidelines mandating that health care workers avoid accidental exposure to the virus through contaminated blood by wearing gloves, eyeglasses/goggles, masks and protective gowns. Appropriate disinfection and sterilization completely protects other patients.

Symposium Update

A new speaker has been added to the agenda! Look forward to a presentation on "Implants and the Dental Hygienist" Saturday, July 1st from 9:00 - 11:00 a.m. sponsored by Nobelpharma Inc.

The guest speaker on Friday afternoon, sponsored by Colgate Palmolive will be discussing "Microbiological Diagnosis in Periodontics: Theoretical and Practical Considerations".

Hygienists from both Japan and Sweden have already booked large blocks of rooms at the Westin Hotel for the Symposium. Plan your trip now and book early so you won't be disappointed. If your registration form and registration fee are received before March 31st, you will be eligible for a draw for two free airline tickets from Air Canada to be used in conjunction with the Symposium.

For registration, we would be happy to accept a \$100.00 deposit payable before March 31st, with the balance of \$175.00 payable on or before May 15th. **A post-dated cheque is required with your registration form** in order to receive this reduced registration fee of \$275.00. Those choosing this two-part payment option are not eligible for the Airline Ticket draw.

See this issue of *PROBE* for your registration form. For more information, please contact: 11th International Symposium c/o 53 Ariel Court, Nepean, Ontario. K2H 8J1



Le FCED accepte maintenant les demandes de bourse en enseignement et en recherche

OTTAWA (le 1 décembre 1988) - Le Fonds canadien pour l'enseignement dentaire a annoncé que les demandes de bourse en enseignement et en recherche pour l'année scolaire 1989/90 doivent être soumises avant le 1^{er} mars 1989.

Les candidats peuvent se procurer les formulaires et des renseignements auprès des facultés de médecine dentaire ou au bureau du FCED, situé au 105-1815 promenade Alta Vista, Ottawa, Ontario, K1G 3Y6, (613) 731-0493.

Les candidats doivent être citoyens canadiens ou résidents permanents, avoir terminé leurs études du premier cycle en médecine dentaire ou un programme d'études en hygiène dentaire ou en sciences, et être admissibles à un programme d'études supérieures ou avancées.

Les candidats doivent déclarer leur intention à poursuivre leur enseignement ou leur recherche dans une faculté canadienne de médecine dentaire ou dans une école de formation des auxiliaires dentaires.

Les candidats doivent au minimum enseigner deux jours par semaine et on accordera préférence à ceux ou celles qui retourneront à l'enseignement ou à la recherche à temps plein.

Le nombre de bourses ainsi que leur valeur monétaire sera déterminé par le Comité d'aviseurs sur l'octroi des bourses et le Conseil des fiduciaires.

Les noms des récipiendaires seront annoncés au milieu du mois de mai 1989.

Renseignements:
M^{lle} Louise Préfontaine
(613) 731-0493

CFDE now accepting Fellowship Applications for Teacher/Researcher Training

OTTAWA (December 1, 1988) - The Canadian Fund for Dental Education has just announced that March 1, 1989 will be the deadline for filing applications for a teacher/researcher fellowship for the 1989/90 academic year.

Forms and information may be obtained from the Dean's office in each of the Canadian Faculties of Dentistry or through the office of the CFDE, located at 105 - 1815 Alta Vista Drive, Ottawa, Ontario, K1G 3Y6, (613) 731-0493.

Candidates must be Canadian citizens or permanent residents who have completed an undergraduate course in dentistry, dental hygiene or a program in science and be eligible for admission to a graduate school.

Applicants must declare their firm intention to become a teacher and/or researcher in a Canadian Faculty of Dentistry or Dental Auxiliary Training Program. The minimum commitment in this regard is two days per week and preference will be given to those applicants who will return to a full-time teaching/research position.

The number and the value of each fellowship will be determined by the Fund's Advisory Committee on Fellowship Selection and the Board of Trustees.

The names of the fellowship recipients will be announced after the CFDE annual Board of Trustees meeting, in the middle of the month of May 1989.

For further information, contact:
Louise Préfontaine
(613) 731-0493

Membership

Membership Draw

Congratulations to the winners of the Membership Draw! All membership applications received by October 31st were included in the draw. Free active membership in the C.D.H.A. to:

RAQUEL CONZÁLEZ
Ontario

MARSHA SAWLER
Nova Scotia

Malpractice Insurance

It is not too late to obtain malpractice insurance. The CDHA policy for this insurance is available from January 1, 1989 for the full year. Fill out the enclosed application form for membership to apply. If you already are a member send in an additional \$20.00, otherwise enclose the insurance premium with your membership fee.

Keep Fit Professionally

Membership Fees were due October 31st. The membership year runs from November 1, 1988 to October 31, 1989.

Associate Membership in C.D.H.A.:

Associate membership is available if you reside outside Canada or in the Yukon or Northwest Territories. The fee for C.D.H.A. is \$25.00. You may also join the provincial association of your choice.

Associate Membership in Provincial Associations:

Associate membership allows out of province residents the opportunity to support a provincial association. To join a provincial association as an associate member, you must first be an active

member in your province of residence. Please indicate on your membership the province and add the additional fee.

Province	Associate Fee
Alberta	\$15.00
B.C.	\$15.00
Manitoba	\$4.00
N.B.	\$5.00
Nfld.	\$5.00
Ontario	\$30.00
Saskatchewan	\$20.00
P.E.I.	0
N.S.	\$30.00

If you have not already done so, mail your membership application today.

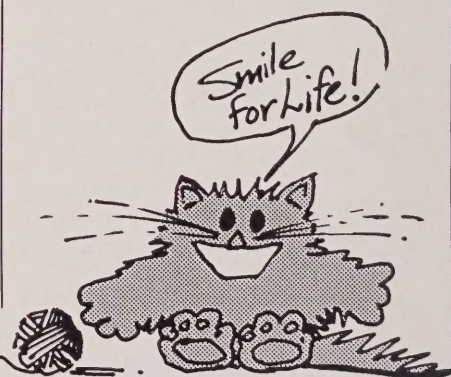
Send to: C.D.H.A.
1018 Merivale Rd.
Suite 201
Ottawa, Ontario
K1Z 6A5

It would be appreciated if you would include the mailing label from the front of the Journal.

Fee Schedule

Province	Active	Support	Student
Alberta	135.00	40.00	40.00
British Columbia	130.00	40.00	30.00
Manitoba	100.00	29.00	27.00
New Brunswick	95.00	30.00	25.00
Newfoundland	95.00	30.00	25.00
Nova Scotia	125.00	25.00	25.00
Ontario	160.00	55.00	50.00
Prince Edward Island	95.00	25.00	25.00
Saskatchewan	*	45.00	40.00
Quebec	75.00	25.00	25.00

*Saskatchewan Active Members submit their fee of \$135.00 with their provincial licence fee in January.



MEMBERSHIP APPLICATION

LAST NAME _____
FIRST NAME _____ INITIAL _____
MAIDEN NAME _____
STREET _____ CITY _____
PROVINCE _____ POSTAL CODE _____
TELEPHONE (home) _____ TELEPHONE (office) _____
COMPONENT SOCIETY _____
SCHOOL OF GRADUATION _____ YEAR OF GRADUATION _____
EMPLOYMENT
☐ Private Practice ☐ Education ☐ Public Health ☐ Other

MEMBERSHIP

- ☐ ACTIVE
☐ SUPPORT
☐ STUDENT

AMOUNT \$ _____

☐ ASSOCIATE
PROVINCE(S) _____ \$ _____
CDHA (out of country) \$ _____
TOTAL MEMBERSHIP FEES \$ _____

MALPRACTICE INSURANCE (OPTIONAL)
\$20.00 \$ _____
TOTAL AMOUNT ENCLOSED \$ _____

- ☐ CHEQUE
☐ VISA #

expiry date _____

Attach mailing label here

Highlights

**"Congregate in '88"
August 21 - 24 1988
Edmonton, Alberta**

The 1988 Dental Hygiene Convention was a definite success! Not only did more hygienists than expected attend, but the scientific program provided us with thought provoking questions related to our practice of dental hygiene and our relationships with other professionals.

Dr. Irene Woodall lived up to her advanced billing by providing an excellent overview of the dental hygiene issues emanating out of the '80's and moving us into the next decade. She assisted us in exploring our strengths and our concerns! New clinical protocols were outlined with concrete ideas on how to employ those new preventive and therapeutic measures. As a role model for hygienists, Irene Woodall is unparalleled.

Mr. Doug Kienz followed with a definitive discussion on self-esteem and strategies for stress reduction - areas that are critical for continued excellence in our chosen profession. Ethical decision making, a matter of serious concern during these troubled times was addressed by Dr. Bruce Hatfield.

President's Reception - Ellen Williams, C.D.H.A. President, Jack Neidemeyer, C.D.A. President



E. Brownridge, H. King, E. Williams, J. Juchli

This convention cornered three critical and pertinent areas of concern to dental hygienists; but perhaps the most important aspect of any convention is the interaction shared among dental hygienists from all parts of the country and all aspects of the profession. Doug Krenz told us what the value of conventions are when he said we retain 70% of what we talk over with others, 80% of what we use in real life and 95% of what we teach someone else.

Dental hygiene conventions are an integral component of our professional life; a time to share and a time to learn. If we can gain by attending a national convention imagine how much more we can glean from an international event.

Let's celebrate C.D.H.A.'s Silver Anniversary at the Symposium in Ottawa, June 1989. ■

Fran Cotton



Dr. Irene Woodall "Revitalizing Your Dental Hygiene Career"

L. to R.

F. Cotton, J. Juchli, D. Daniels, L. Strevens



ABSTRACTS

Dental Implants: A Protocol for Hygiene Management

Karima Bapoo-Mohamed
R.D.H.

Since ancient times, mankind has sought an adequate replacement for natural dentition. Stone and ivory were used in ancient Egypt to replace missing teeth. This quest has led mankind to the present day reality of dental implants. The advent of dental implants has made it possible to replace single or multiple missing teeth in a sound and scientific manner. Greater understanding of the physiology of the supporting tissues, biomaterials science, bone imaging, implant design and prosthodontic design has made implant dentistry a predictable service.

A dental hygienist's involvement in implant dentistry can be very challenging and rewarding. A logical and standardized office protocol is necessary to ensure correct patient selection and oral health management. The patient must be taught a new regimen of home care to maintain the implant prosthesis.

This table clinic will address the protocol to be followed; which will include:

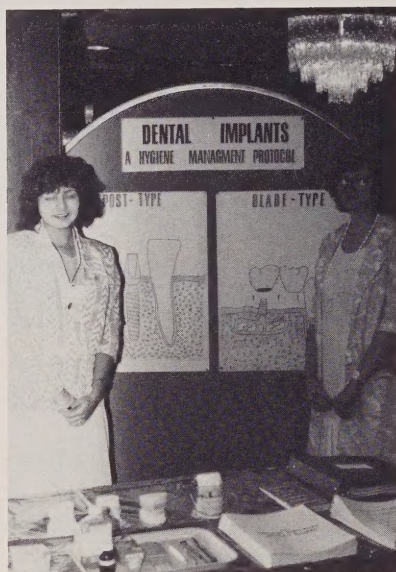
- Patient selection (psychological, clinical and medical evaluation).
- Patient education.
- Periodontal maintenance therapy.

A hygienist can play an essential role in motivating patients to pursue a disciplined program of personal dental hygiene around the implant area(s) in order to ensure the longevity and success of the implant.

C.T.S. Are You at Risk

Cindi Chapman
Judy Clarke
Michele Moroz
Grace Strecker

Carpal Tunnel Syndrome (C.T.S.) is a disabling condition of the wrist joint that is increasing in incidence in the



dental profession. Since the dental hygienist's primary tasks may require constant flexion and extension of the wrist, she is predisposed to developing this condition. C.T.S. is considered an occupational hazard to the profession, and increased knowledge of its etiology, symptoms, diagnosis, treatment, prognosis and prevention is essential. Utilizing an increased awareness of these factors, the professional will be able to initiate the proper measures to prevent this syndrome.

Dental Caries Prevalence and Fluorosis in the Permanent Teeth of 11 - 13 Year Old Children Involved in a Fluoride Supplementation Program in Alberta.

J.F.L. Pimlott, J. A. Hargreaves, G.W. Thompson and L. D. Nobert, Faculty of Dentistry, The University of Alberta, Edmonton, Alberta and Sturgeon Health Unit, Alberta, Canada.

A study was undertaken in two rural areas of Alberta to examine the effect of

fluoride supplementation on dental caries and enamel fluorosis in the permanent teeth of children 11 - 13 years old. The sample size of the study group and control groups were 119 and 70 respectively. In the study group the fluoride water concentration was less than 0.3 ppmF. The fluoride supplementation regimen for this group was 0.5 mgsF per day between birth and 3 years and 1.0 mgsF per day from 3 - 12 years of age. None of the control group received fluoride supplements and the water fluoride level was also less than 0.3 ppmF. Dental caries were measured according to WHO guidelines. A significant difference in dental caries (DMFT) was seen ($p < 0.001$) between the control group and the study group, measuring 3.06 and 1.74 respectively. Fluorosis was measured according to the TSIF index. Fifty three percent (53%) of the study group had enamel fluorosis as compared to 10% of the control group. Of those individuals with fluorosis the majority 71% (for both the control and study groups) was class 1 fluorosis (white flecking or snow capping).

Are you a knowledgeable source? Dental product guidelines for the dental hygiene practitioner.

Karen Kopciuk
Barbara Cooper

Tartar-fighting toothpastes, plaque-inhibiting mouthrinses, and the numerous variations on a toothbrush theme - these are but some of the new products available in the current explosion in the dental industry. The dental hygienist, as a recognized, qualified source of dental information, needs to be aware of the variety, the claims of efficacy and the limitations of these new products. Although manufacturers are more than happy to supply these facts, the need exists for independent guidelines that are available from a variety of sources. An understanding of how to seek, evaluate

and utilize these guidelines is an invaluable skill for the knowledgeable dental hygienist.

Oral Health Status of Fort McMurray School Children 1987

Sandra J. Cobban, *Dip.D.H.*
Dawn Samis, *Dip.D.H.*

An epidemiological study was conducted on a random sample of Fort McMurray schoolchildren to obtain baseline oral health status data for use in program planning.

From a random start point, every tenth student from grade one through grade six was selected to participate. A further group of every fifth 13-year old was selected. A total of 461 were screened.

Results showed the def/DMF of grade one to be 1.75/0.10, grade two - 1.58/0.52, and grade three to be 1.97/0.78. The DMF of grade four was 1.12, grade five was 1.23, grade six was 1.93, and 13-year-olds (which included students in grades seven, eight, and nine) had a DMF of 3.31.

Other data gathered indicated that only 27.55% of the children required restorative treatment. In grades two through five, 39% to 56% of the students had debris covering more than one-third of the tooth surface.

There was concern for the variation in the DMF of grade six students at 1.93 and 3.31 for 13-year-olds. This also compares unfavourably with Alberta data, showing DMFT rates for 13-year-olds to be 3.19 in urban areas and 2.90 in metropolitan areas.

Data gathered supports expansion of the fluoride rinse program to obtain a reduction in the DMF of 13-year-olds and reinforcement of programs that track oral hygiene indices in grades two through five.

Oral Hygiene and Dental Health Education in a Community Outreach Program for At-Risk Pregnant Women

Presenter: Mary Anne Hayes, *R.D.H.*
Associate of Science in Dental Hygiene
Supervising Dental Hygienist
Vancouver Health Department

A dental component was established in support of an outreach program ("Healthiest Babies Possible") of the Vancouver Health Department. Nutrition counsellors assist pregnant women who are at-risk because of nutritional, cultural and economic factors.

Sound dental health is essential to the maintenance of good nutrition. The major goals of the dental component, therefore, were to:

- (1) eliminate pain and infection
- (2) encourage the prospective mothers to improve their personal dental health by assuming responsibility for their daily oral hygiene, and to
- (3) increase the knowledge of the prospective mothers of proper infant dental care procedures and to encourage their implementation in the home.

A dental survey was conducted to assess the needs of these clients for preventive, periodontal and/or restorative treatment. Using the date of the last dental visit as a key indicator, the following data was very revealing.

Last Dental Visit	Percentage of Client Population
Never	18%
>5 years	12% 60%
<5 years >3	30%
<3 years >1	30%
<1 year	10%

Of the sixty clients screened, using the Simplified Oral Hygiene Index and the Gingival Index (LOE), 81% presented with moderate to severe gingivitis and of this number 40% were periodontally involved. The initial survey identified these clients as having a history of infrequent dental care with a high need for dental intervention and preventive dental health education.

The paper will describe the collaboration of the dental hygiene consultant and the nutrition counsellors in the promotion, referral, treatment, follow-up and evaluation of the program.

A summary of results indicating the positive changes in oral hygiene and preventive dental habits (including the use of fluoride supplements) found following the program's evaluation will be given.

A Case Study: Composite Resin vs Porcelain Veneers. Which is the Ultimate Choice?

Arlynn, Brodie. *Dip. D. Hyg., B.P.E., D.P.S.M.*

Patient interest in cosmetic dentistry is on the rise. Patients will inevitably question the hygienist as to her/his opinion on veneer placement. It is increasingly important that hygienists be sufficiently informed on the subject matter so that they may provide basic, factual information in response to patient's queries.

The purpose of this study was to establish common indications for veneer placement, collect comparative information on veneer methods currently available to our patients, and to isolate specific oral hygiene concerns related to veneer placement.

The initial objective was to analyze current available data and to identify the advantages and disadvantages of both veneer methods. Based upon the data collected and direct clinical observation a further assessment was made as to the most favourable choice of veneer treatment.

The method of data collection included a review of the periodical literature as well as clinical observation of both composite resin and porcelain veneer placement.

The literature indicates the following common uses for veneer placement; including, peg laterals, tetracycline staining, diastema closure, chipped anterior teeth, incisal contouring, stained or mottled teeth from fluorosis, retained primary dentition and discoloured endodontically treated teeth.

Advantages and disadvantages do exist for both methods of veneer placement; however, under most circumstances the porcelain veneer is considered to be the best choice because it is stronger, more resistant to stain, well tolerated by dental tissue, and produces a superior long-term esthetic result. The resin veneer, although less expensive and requires minimal tooth reduction, stains readily especially in smokers and coffee/tea drinkers, as well as exhibiting a dull surface lustre and low abrasion resistance. Additionally, resin veneers are often overcontoured at the gingival margin and are not well tolerated by the gingiva; thereby, creating a rolled and inflamed margin.

The findings showed that under most circumstances porcelain veneers are considered by most to be the preferred method of veneer placement. Each individual case must be analyzed separately and the appropriate method of veneer placement chosen to satisfy the patient's requirements.

Special oral hygiene considerations for either type of veneer placement include: sulcular brushing, use of neutral pH topical fluoride, and routine flossing around the gingival margins.

Veneer placement would not be indicated for patients who are heavy smokers, and/or coffee drinkers who exhibit poor oral hygiene habits.

Fluoride Knowledge, Attitudes, and Practices Among Health Professionals

(Presenter)

Jackie Smorang, B.A., R.D.H., M.S.Ed.
Health Promotion Consultant
Health Education Division
Calgary Health Services

Thomas Abernathy B.S., M.S., Ph.D.
Administrator
Research and Information
Calgary Health Services

Health professionals can play an important role in the education of their patients regarding health issues. Research has found that the public perceives the dental and medical professions as trustworthy sources of information on fluoridation, even though they rarely receive this

information from them. However, with the exception of dentists, little has been documented concerning fluoridation knowledge of health professionals. The purpose of this study, therefore, was to measure and compare the fluoride knowledge, attitudes, and practices of dentists, dental hygienists, dental assistants, dietitians, pediatricians, family physicians and registered nurses.

Data was gathered through questionnaires mailed to a representative sample of 1110 Calgary health professionals. Follow-up mailings achieved response rates

which varied from 53% (registered nurses) to 86% (dental hygienists). Results indicate that although most respondents believe fluoride is an effective way to prevent dental decay, there is both misinformation and a lack of information concerning several other aspects of fluoridation. While some respondents perceive themselves to be well-informed, most are willing to improve their knowledge level.

Findings of this study suggest the need to develop fluoride education programs specifically designed for health professionals to enable them to convey accurate information to the public. ■

C.D.H.A. NATIONAL CONVENTION Congregate In '88

We gratefully acknowledge our sponsors for their interest and support.

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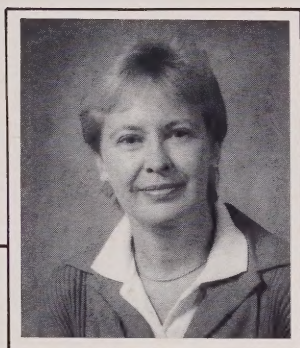
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C.D.H.A. RESEARCH FELLOWSHIP



Bonnie Trodden

1988-89 Recipient

Mrs. Bonnie Trodden, Dip DH (Toronto) BA, MA has been selected as the second recipient of the CDHA Research Fellowship. This \$3,000.00 fellowship is awarded annually. A selection is made from candidates who are Canadian dental hygienists enrolled in a research oriented Masters or Doctoral program.

Bonnie Trodden is a 1966 graduate of the University of Toronto School of Dental Hygiene. She also obtained a Bachelor of Arts degree in 1975 and a Master of Arts in 1982, both from the University of Manitoba. Bonnie has practised clinical dental hygiene part-time in both general and specialty practice from 1971 until 1985. She has held the position of Assistant Professor, School of Dental Hygiene, University of Manitoba, First year Dental Hygiene Program Co-ordinator since 1983.

Bonnie is presently enrolled in a PhD program (Physical Anthropology) at the University of Manitoba, Faculty of Arts. Her research topic is an epidemiological study of the dental health of Winnipeg core area children. Her research objectives are: to evaluate the socio-cultural and biological contrasts from various ethnic backgrounds and to better understand the cultural factors which influence the attitude of recent immigrants towards dental health, with particular emphasis on dental caries prevalence.

Selection of CDHA Research Fellowship recipients is made by Executive Council upon recommendations from the Ad Hoc Advisory Committee, Research Training

Fellowship. Members of this Committee for 88-89 include: Professor M. Forgay, Chairman (Halifax), Dr. E. Sutow (Halifax), Dr. C. Dawes (Winnipeg) and Ms. F. Hubbard (Nanaimo).■

CALL FOR APPLICANTS

Canadian Dental Hygienists' Association Research Training Fellowship 89-90

Fellowship

(1) \$3,000.00 award to be made annually

Eligibility

Any Canadian dental hygienist enrolled in a research oriented Masters or Doctoral program may apply.

Applicant must be a member of C.D.H.A.

Applicants may receive a maximum of two Research

Training Fellowships, but must re-apply for the second year.

FOR AN APPLICATION FORM AND FURTHER DETAILS, WRITE:
Canadian Dental Hygienists' Association
1018 Merivale Rd.,
Suite 201,
Ottawa, Ontario K1Z 6A5

*Application Deadline for 1989-90
April 30, 1989*

HIGHLIGHTS OF THE SYMPOSIUM

Pre-Symposium Workshops **Wednesday, June 28th**

These facilitated workshops are designed to provide an educational opportunity in your particular area of interest. The workshops will be held at the University of Ottawa, a short walk from the Westin Hotel.

Getting Started in Research

Marnie Forgay, RDH, BEd, MA

Director, School of Dental Hygiene, Dalhousie University

The goal of this workshop is to assist dental hygienists not presently doing so, to participate in research. The workshop will:

- identify reasons why dental hygienists should be involved in research
- identify areas and topics suitable for dental hygiene research; and
- discuss basic research considerations related to areas such as problem formulation, design, sampling, data collection and analysis.

Continuing Education - You're in Charge!

Mickey Emmons Wener, RDH, BS, MEd

Formerly Facilitator Continuing Education Dept., Faculty of Dentistry, University of Manitoba

This half-day participatory is designed to help you, the dental hygienist, take control of your professional development. Participants will increase their ability to design and set goals for their own personalized, successful continued learning. Topics will include:

- Why we participate, or don't - The motivational forces underlying participation;
- How we learn - Differences between learners;
- What's available - Traditional and non-traditional options for continuing education; and
- Setting learning goals for the future.

Education - Are We Ready for 2001?

Mai Pohlak, DipDH, BA, MEd

Co-ordinator Dental Hygiene BScD Program - University of Toronto

In the interest of maintaining professional competency and projecting the changes in dental health care, the dental hygienist educator as well as the practising dental hygienist may wish to investigate the function of planned curriculum changes and continuing education for the enhancement of dental hygiene as a profession.

The Role of the Dental Hygienist in Community Health

Jane Mays, EDDH

Ottawa-Carleton Health Dept.

Participants will be invited to share their thoughts and ideas with dental hygienists who work with various community health dental program worldwide. Topics will include:

- What are our present capabilities?
- What will be our future challenges?

Clinical Photography

Rita Bauer

Medical Photographer - Faculty of Dentistry - University of Toronto

This course will introduce the participants to the use of clinical photography. Photographic principles, guidelines and techniques for a basic series of patient photographs will be reviewed. Hands-on experience will allow participants to take slides which will be processed on-site and the results evaluated. Participants are encouraged to bring their own camera if possible.

Lecture only available A.M.

Lecture and hands-on - full day - max. 10

Professional Writing: Letters, papers and book reviews

Olga A. Ibsen, *RDH, MS*

Editorial Director of the Journal of Dental Hygiene published by the American Dental Hygienists' Association.

This course is designed to provide potential authors with skills and knowledge necessary for professional publishing. The participants will become familiar with:

- the various types of letter preparation and how to get the message across;
- the format that should be followed in preparing a research paper, including specific information related to abstract preparation, review of the literature, use of survey instruments, journal guidelines and the review process; and
- how to prepare a book review.

Motivation and Me!

Sheryl Feller, *RDH, CMC*

S.J.B. Management Consultants

This workshop will allow dental hygienists to examine the concept of motivation from both personal and professional perspectives. Participants will consider:

- definitions of motivation;
- motivational theories;
- what fosters motivation and what works against it;
- how to maintain or recapture personal motivation; and
- strategies for their own development.

New Concepts in Dental Materials

Anne Bosy, *RDH, BSc, MEd*

Instructor - Dental Hygiene Program - George Brown College Toronto

This workshop will focus on the latest esthetic materials: resins, veneers and glass ionomer cements; as well as their support system of etchants, bonding agents and light-cured liners. These materials will be explored through the use of slides, videotapes, discussions and some hands-on experimentation.

Geriatric Dentistry

Jenny Thomas, *BA, RDH*

Dental Hygienist, Ottawa Civic Hospital

The goal of this workshop is to provide information about victims of strokes, Alzheimer's and Parkinson's Disease so that communication with and management of these people will be enhanced when they are encountered in a dental environment. It is also to provide information about the process of implementing an effective oral health program within a facility for the aged. The director of nursing for this facility will also discuss the problems of implementation from her perspective.

Dollars and Sense

Kim Ball, *AA, DPHE*

Manager, Women's Marketing, Imperial Life Assurance Company of Canada

This workshop will focus on better money management, including:

- how to manage your income
- how to manage your savings; and
- how to alleviate the bite of taxes and at the same time work toward a secure future.

1/2 day workshops in P.M.

Check-in time at the university will be 8:30 A.M. for morning or all day workshops and 12:30 P.M. for afternoon workshops

Registration fee for Pre-Symposium Workshop

Full day - \$30. - (lunch not provided)

1/2 day (P.M.) \$20. -

Photography lecture (A.M.) \$30. -

Photography full day \$95. -



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SYMPOSIUM ON
DENTAL HYGIENE
JUNE 28 - JULY 1, 1989
WESTIN HOTEL

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(REQUEST BROCHURE FOR DETAILS)

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Mailing Address (# and Street)																													
City										Province/State																			
Country										Postal Code																			

Phone

PRE-SYMPOSIUM WORKSHOPS

Wed. June 28 1989

Indicate 1st, 2nd, and 3rd choice:

- | | |
|---|-------------------------------|
| — Getting Started in Research | — How to write a paper (*) |
| — Continuing Education (*) | — Self Motivation (*) |
| — Educators | — Dental Materials Update (*) |
| — Community Health (*) | — Geriatric Dentistry (*) |
| — Photography Lecture only 1/2 day (am) | — Financial Planning (*) |
| — Photography Lecture and hands on (full day) max. 10 | |

(*) 1/2 day (pm)

EXCURSIONS

Pre Symposium June 24-27 3 nights Toronto, Niagara Falls
Post Symposium July 2-5 3 nights Montreal, Quebec City

DAY CARE

Facilities will be available at symposium site day and evening.

Number of children _____ Ages of children _____

User fees will apply.

REGISTRATION

Full registration includes all social events, lunch and scientific programs except presymposium workshops.

Daily registration includes all scientific events and lunch only for the day.

* Early bird registration entitles you to win 2 free airline tickets from Air Canada to be used in conjunction with the symposium.

CANCELLATION POLICY

If cancellation notice is received in writing prior to March 31 '89 a refund less \$30. administration fee will be issued; after March 31 '89 50% refund will be issued. No refunds will be given after June 15 '89.

Name(s) of accompanying person(s): Indicate children

REGISTRATION FEES (NO ON-SITE REGISTRATION)

CHECK IN ONLY

Full Registration - on or before March 31 '89	\$275. _____
after March 31 '89	\$300. _____
Daily Registration - Thur. June 29 '89	\$150. _____
Fri. June 30 '89	\$150. _____
Accompanying Persons - Social Events	
Opening Ceremony and Reception	\$25. _____
Canadian Food & Spirits Gala	\$25. _____
Western Style Beef Barbeque	\$25. _____
All three events	\$50. _____

PRE SYMPOSIUM WORKSHOP

Wed. June 28 '89. (lunch not provided)	full day	\$30. _____
	1/2 day (pm)	\$20. _____
Photography lecture		\$30. _____
Photography	full day	\$95. _____

EXCURSIONS

Pre Symposium	June 24 - June 27 '89	\$375. _____
	3 nights Toronto, Niagara Falls	
Post Symposium	July 2 - July 5 '89	
	3 nights Montreal, Quebec City	\$375. _____

Total Fees Payable \$ _____

PAYMENT: ONLY CANADIAN FUNDS ACCEPTED

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CANADIAN DENTAL HYGIENIST STUDY

PART II: REGISTRATION, LICENSURE AND EMPLOYMENT PROFILES (1987)



DENTAL
HYGIENE
IN CANADA

Patricia M. Johnson, RDH, BScD, MSc

Dental hygienists are a major provider of oral health services. Their numbers and distribution are important factors in planning future resource requirements. A national study was conducted to gain more comprehensive knowledge and understanding of dental hygienists in Canada. The research was undertaken by the author, in conjunction with the Canadian Dental Hygienists' Association (CDHA) and the Corporation Professionnelle des Hygienistes Dentaires du Quebec (CPHDQ). The objectives were to: 1) determine the current supply of dental hygienists in Canada; 2) describe their demographic, professional, employment and work characteristics; and 3) examine regional variations in and factors related to patterns of workforce participation and practice.

The methodology for the study was outlined in Part I of this report. (1) The study population consisted of all dental hygienists registered to practice and residing in Canada as of May 1, 1987. A two-part mail survey was conducted. It consisted of an enumeration of the total population plus a survey in greater detail of a regionally stratified probability sample. The overall response rates for the census and the sample surveys were 89.0 percent and 85.9 percent respectively.

This report is the second of a series to provide highlights of findings from the census survey. It is based on 5,399 respondents - those that comprised the potential supply of dental hygienists in 1987. Dropped from this particular analysis were 25 persons who, by definition, had permanently changed occupation - for example, to dentistry or law. In the tables and figures presented, the North West Territories and the Yukon are aggregated with the

provinces of Alberta and British Columbia respectively. Descriptive results are relevant to the present population. While numbers may change from year to year, percentage distributions, as are presented in this report, are more stable.

I Registration and License

To practice in a province or territory of Canada, a dental hygienist must be registered in that jurisdiction and hold a current license or permit that is renewable annually. An exception is Alberta where a license is not required. Also, dental hygienists in the Canadian Armed Forces, as federal employees, do not require provincial or territorial registration. An individual may be licensed to practice in more than one jurisdiction in any one year - that is, hold multiple licenses. In Quebec, non-registrants may perform typical dental hygiene functions but may not use the title 'dental hygienist'; this group is not included in this analysis.

1. Current License

For the purposes of this study, the term 'current license' means qualified to practice dental hygiene according to jurisdictional regulation. The overwhelming majority of the respondents held a current license (97.9%). In general, most dental hygienists (91.6%) were licensed to practice dental hygiene in only one province or territory. A further 6.8 percent reported holding a current license in two provinces while a smaller group, 1.6 percent, reported holding a current license in three or more provinces. This approximately eight percent with multiple licenses is of interest when planning health services delivery in those provinces for which this group of respondents are licensed but not resident.

Portability aspects of registration and the effect of 'licensing' examinations on workforce re-entry patterns, for dental hygienists who migrate, will be examined more closely using information from the sample survey.

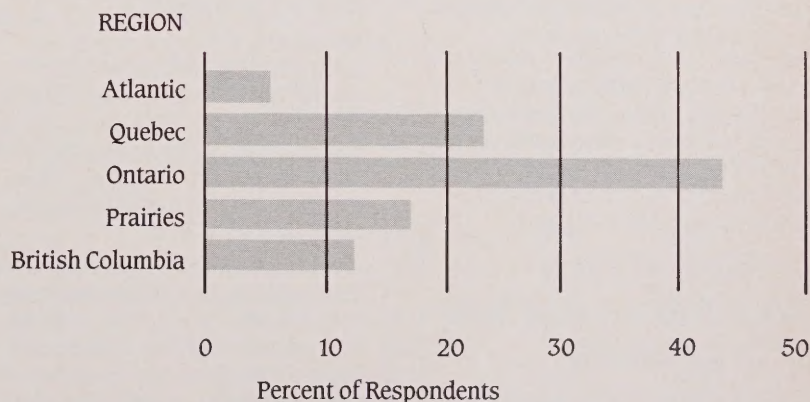


Figure 1
Region of Current License

Dental Hygiene Survey, 1987.

Table 1
Region of First Registration by Year of Graduation

Year of Graduation	Region of First Registration					Total	
	Atlantic	Quebec	Ontario	Prairie	B.C.	%	N
1936-69	10.3	1.5	56.0	26.0	6.2	100.0	564
1970-74	12.3	2.6	39.5	29.3	16.3	100.0	529
1975-79	4.5	33.3	42.2	13.4	6.7	100.0	1705
1980-84	4.9	29.0	44.0	15.9	6.2	100.0	1782
1985 and 1986	7.3	28.1	43.6	15.7	5.2	100.0	782

Table II
Movement from Place of First Registration to Region of Current Residence

Place of First Registration	Same Region as First Registered	Region of Current Residence					Total	
		Atlantic	Quebec	Ontario	Prairie	B.C.	%	N
Newfoundland	84.2	n/a	—	5.3	10.5	—	100.0	19
Prince Edward Island	88.0	n/a	—	8.0	4.0	—	100.0	25
Nova Scotia	78.1	n/a	0.9	13.8	1.8	5.4	100.0	224
New Brunswick	86.5	n/a	5.4	2.7	4.1	1.4	100.0	74
Quebec	93.9	0.4	n/a	3.9	1.0	0.7	100.0	1338
Ontario	94.1	0.2	0.5	n/a	2.5	2.7	100.0	2374
Manitoba	80.4	0.3	0.3	10.5	n/a	8.4	100.0	332
Saskatchewan	84.0	4.0	—	4.0	n/a	8.0	100.0	100
Alberta	80.4	—	—	2.4	n/a	17.3	100.0	504
British Columbia	89.1	0.5	—	2.8	7.5	n/a	100.0	386
Yukon and North West Territories	50.0	—	—	—	n/a	n/a	100.0	2

2. Region of Current License

As noted, slightly more than 90 percent of all respondents were licensed to practice in one province only. In this group, the maritime provinces accounted for the smallest percent of current licenses (4.9%). Ontario (43.0%) and Quebec (23.2%) had the largest proportion of current licenses. The Prairie region and British Columbia accounted for 16.3 percent and 12.6 percent respectively. (Figure 1)

3. Place of First Registration and Year of Graduation

Approximately 12.0 percent of all currently registered dental hygienists who graduated prior to 1975 first

registered to practice in the maritime provinces, primarily in Nova Scotia. With the opening of educational programs in Ontario and Quebec, this percentage has dropped to 4.9 percent for those who graduated in the 1980 to 1984 period. (Table I) A similar decline can be seen in the percent of first registrations in western provinces among the recent graduates. Almost 39 percent of the pre-1975 graduates had first registered in the western provinces (including British Columbia), versus approximately 20 percent of those graduating after 1975.

In contrast, the percentage of graduates first registering in Quebec has grown from less than 3.0 percent to almost 30.0 percent. Together, Ontario and Quebec have accounted for almost 74.0 percent of all first registrations since 1975. This is largely explained by the opening in Ontario and Quebec, during

this same period, of the majority of present Canadian dental hygiene and educational programs. Currently, 75.0 percent of all existing programs are located in these two provinces.

It is important to note that the absolute numbers of dental hygienists registering in the maritime and western provinces may have remained stable or even increased. These data are cross-sectional and cannot address time trends; they do not include those earlier graduates who are no longer registered. However, at minimum it appears clear that the growth has occurred primarily in Ontario and Quebec.

4. Province of First Registration and Region of Current Residence

Dental hygiene appears to be characterized by a relatively stable workforce. Little difference was noted in a comparison between the province of first registration and the region of current residence.

Between 78 and 88 percent of current registrants who first registered in the maritime provinces have remained in the Atlantic region. Dental hygienists who first registered in the Atlantic region and subsequently moved were most likely to report Ontario as their current location. More than 94.0 percent of current registrants who first registered in Quebec and Ontario are currently residing in those regions. Similar figures apply to the provinces in the Prairie region (80.0 to 84.0%) and to British Columbia (89.1%). Any movement in the western region has been slight and primarily from the prairie provinces to British Columbia or from British Columbia to Alberta (Table II).

5. Qualifications to Perform Selected Non-Basic Procedures

For all respondents surveyed, 3,024 or 56.0 percent indicated that they held a license or permit to perform procedures classified as being extended beyond the traditional scope of basic dental hygiene practice. A license to perform orthodontic procedures was reported by 31.3 percent of all respondents while a license for restorative procedures was listed by 28.0 percent. Considerably

fewer respondents reported licenses to administer local anaesthesia (11.3%) or to perform prosthetic procedures (2.4%). A license to perform an unspecified 'other' procedure was indicated by 2.8 percent of respondents.

II Employment

1. Current Employment

For this study, employment is defined as working for pay; the employed portion of the workforce consists of paid and self-employed workers. Employment in the field of dental hygiene appeared strong with 86.8 percent employed either full- or part-time (Table IV). Full-time employment, defined for this analysis as 30 or more hours per week (2), was reported by 58.8 percent of respondents. A further 28.0 percent reported part-time employment, either solely in dental hygiene (25.0%) or in combination with employment in another field (3.0%). Employment solely in another field was reported by 3.2 percent of respondents.

Of those respondents who held a license to perform any one of the four specified extended functions, the majority (75.1%) were licensed for one procedure only while a further 21.7 percent listed two procedures. Less than one percent of the respondents were licensed to perform all four procedures from orthodontics to prosthodontics.

6. Not Currently Licensed

An extremely small percentage of respondents, 2.1 percent (113 respondents) indicated that they were not currently licensed to practice dental hygiene. Compared to the geographic distribution of all respondents, those

not currently licensed were disproportionately higher in the Prairie (35.8%) and Atlantic (15.6%) regions and lower in Ontario (26.6%) and Quebec (11.0%). Non-licensed respondents did not differ from the licensed population of dental hygienists in educational characteristics. However, this group was slightly older and more likely to be married and to have a very young dependent (less than 5 years old) in the home.

Although not currently licensed, thirteen of these respondents reported either full or part-time employment in the field of dental hygiene. Of this group, eight were employed in general dentistry, two in public health, and three in the military. (As noted above, a current license is not required for employment in the Canadian Armed Forces Dental Corps.) A further five of these non-licensed respondents were employed in a field related to dental hygiene and twenty-eight (24.8%) in an unrelated field. The remaining sixty-seven respondents (59.3%) were not employed.

Forty-eight of the 67 non-licensed and not employed respondents (71.6 percent) appear to represent a

permanent loss to the dental hygiene workforce. (Table III) These individuals were not working at the time of the survey and reported the last year most recently licensed as 1984 or earlier. As registered dental hygienists, the non-licensed group is included in all subsequent tables.

Of the ten percent portion not currently employed, 88 respondents were unemployed (that is, seeking employment in or on temporary leave or layoff from dental hygiene), 424 were not employed (including 167 persons on non-formalized maternity leave), and 26 were retired from the labour force.

The labour force participation rate is the percentage of a given population that either has a job - the employed, or is looking for one - the unemployed. (3) Using this standard definition and the 5399 usable responses as the population base, the participation rate of dental hygienists in the Canadian labour force in 1987 was 91.7 percent. Rate of participation in the dental hygiene workforce (that is, the proportion of the population that either is working or seeking work in dental

Table IV
Current Employment Status

Employment Status	Number	Valid Percent
Full-time in Dental Hygiene	3174	58.8
Part-time in Dental Hygiene	1351	25.0
In Dental Hygiene and Other Field	161	3.0
In Other Field	175	3.2
Unemployed, Not Employed, Retired	538	10.0
Total	5399	100.0

TABLE V
Employment Status by Province of Residence

Province of Residence	Employment Status			Total	
	Employed Dental Hygiene	Employed in Other Field	Unemployed and Not Employed	%	N
Newfoundland	91.3	—	8.7	100.0	23
Prince Edward Island	65.4	17.3	17.3	100.0	23
Nova Scotia	82.1	4.5	13.4	100.0	179
New Brunswick	90.1	—	9.9	100.0	71
Quebec	86.4	3.2	10.4	100.0	1280
Ontario	89.5	2.2	8.3	100.0	2392
Manitoba	79.7	6.0	14.4	100.0	251
Saskatchewan	73.6	11.7	14.7	100.0	102
Alberta	85.0	3.0	12.0	100.0	520
British Columbia	86.0	4.7	9.4	100.0	558

TABLE III
Most Recent Year Licensed for Respondents Neither Licensed Nor Employed

Year	Number
1954-1979	20
1980-1984	28
1985	6
1986	11
1987	2
TOTAL	67

hygiene) was 88.4 percent. These rates are remarkably high in comparison with overall labour force rates and with other female-dominant occupations.

2. Employment Status and Place of Residence

Employment status and place of residence are described in Table V. For almost every province, the majority of respondents were employed full-time in dental hygiene; Newfoundland and Saskatchewan were the only exceptions with just 43.5 and 46.1 percent of respondents, respectively, indicating full-time employment. Newfoundland had the largest proportion of respondents employed part-time only (47.8%), followed by British Columbia (30.3%), Ontario (29.1%), and Alberta (28.5%). Prince Edward Island had the largest percentage of respondents not in the paid labour force (17.3%). It should be noted that for provinces like Newfoundland and Prince Edward Island with their comparatively few dental hygienists, a small shift in numbers from one employment category to another can produce a marked change in percent figures.

For Canada as a whole, respondents tended to be employed either full- or part-time in dental hygiene rather than being unemployed or in a field related to hygiene. Saskatchewan was the only province to break with this trend where a two- to three-fold increase in the portion employed in a field related to dental hygiene was apparent. In part, this was accounted for by those respondents registered both as dental hygienists and dental therapists.

Much more provincial variability was noted among those respondents employed in an unrelated field. Prince Edward Island had the largest percent of respondents employed in a field unrelated to dental hygiene (13.0%), followed by Saskatchewan (6.8%), and Manitoba (5.6%). For Newfoundland and New Brunswick, there were no respondents reportedly employed in an unrelated field.

3. Number of Years Worked in Dental Hygiene

Dental hygienists on the whole tend to be active in their profession for a considerable length of time. (Figure 2) The profession is predominately female and thereby sensitive to the variations introduced through the dual demands of marriage and parenting. In addition, the increased number of recent graduates exerts a downward pull on the average number of years worked. Even given these factors, a full 69.2 percent of respondents have worked in dental hygiene for five years or more.

Summary

The vast majority of dental hygienists held a current license or permit to practice and in one province or territory only. Little movement was noted for dental hygienists from the place of first registration to the place of current residence. Few dental hygienists held a license to perform extended procedures. Among those who were licensed, the majority were licensed for orthodontic and restorative procedures.

The workforce participation rate and employment level are high within this profession. The majority of dental hygienists work full time in dental hygiene. These overall high levels do not vary much by province. The profession is characterized by a large pool of dental hygienists who work actively in their field.

Part III will examine workforce participation more closely and profile the dental hygiene workplace.

Acknowledgements

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Percent of Respondents

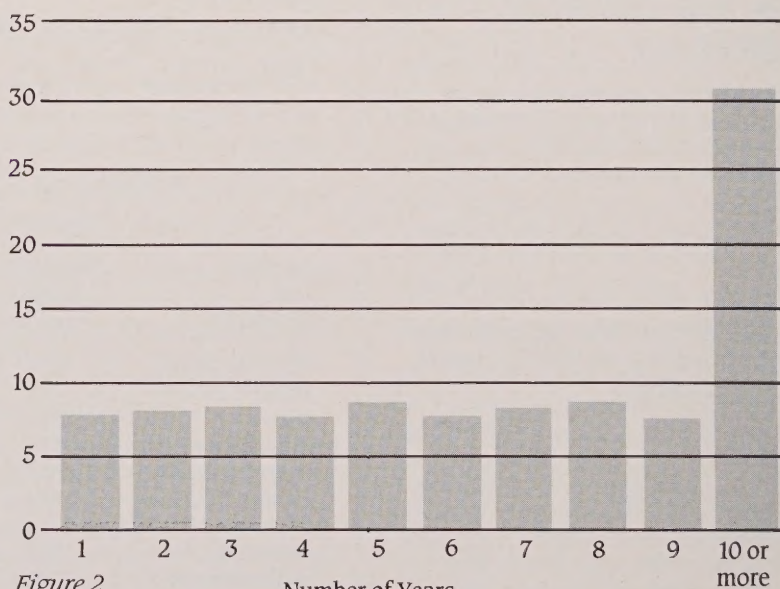


Figure 2
Number of Years in
Dental Hygiene

Dental Hygiene Survey, 1987.



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1 Dzink, J.L., and Socransky, S.S. Comparative in vitro activity of sanguinarine against oral microbial isolates. Antimicrobial agents and chemotherapy. 27:663-665, 1985.

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HYPNOSIS IN DENTISTRY

Ruth Lunn Dip, D.H.
Clinical Dental Hygiene Instructor
Vancouver Community College

Introduction

How often have you heard a patient in your dental office express their dislike for being there, that even a pending visit to the dentist makes them nervous and anxious, and the mere thought of the 'needle' sends a chill up their spine? The patients who share this common feeling belong to a large group of our society who have a fear of dentistry. Hypnosis can be selected as one of the adjuncts in the dental office that the trained practitioner can use to help alleviate the patients fear and anxiety as well as other related dental problems.

Definition

Of all the altered states of consciousness, hypnosis is one of the best known yet least understood. The word 'hypnosis' comes from the Greek 'HYPNOS', the god of sleep. Although not a state of sleep, electroencephalographic readings have shown that hypnotized subjects appearing to be in a deep sleep are actually wide-awake and drowsy.¹ Hypnosis is essentially a particular state of mind which is usually induced in one person (the patient) by another (the practitioner). It is a state of mind where suggestions are more readily acceptable than in the waking state and are acted upon more powerfully than would be possible under normal conditions. A heightened state of selective attention is created by hypnotic induction procedures. The

subject 'tunes out' the distractions of irrelevant realities and focuses on the experiences suggested.

One of the oldest applications of hypnosis is in pain control. Hypnosis can even help reduce and control chronic severe pain. Under hypnosis considerable cognitive control of pain can be achieved by affording the patient the ability to control mind over body.

A goal of hypnotic training is to guide the subject to be self-hypnotizable so that he or she is able to control a variety of physiological and behavioral processes by auto suggestion.⁴

Dental Applications

Probably the most important dental use of hypnosis is for the diminution of fear, anxiety and a variety of dental phobias. It has also been used as an anesthetic and for the control of postoperative pain. In addition to its usefulness in the control of bleeding and the promotion of healing, hypnosis has a special application in dentistry because of its ability to diminish salivation and the gag reflex. Other dental applications include:

- thumbsucking and tongue thrusting habits
- bruxism
- reinforcing instructions for oral hygiene
- a substitute for chemical anesthesia for certain cases where an allergy or malignant hypothermia is a problem
- psychological problems arising from dentures and orthodontic appliances

Hypnotic and post hypnotic suggestions are most useful in dentistry where the psychological factor is very significant. However, suggestive therapy may sometimes

also be useful in cases where other methods have failed or are failing (eg. chronic temporomandibular joint pain).⁵

Criteria for Selection of Patient

The person in hypnosis is very receptive to suggestibility. In other words, they accept ideas more uncritically and whole-heartedly than they usually do. This is the key to the therapeutic use of hypnosis – the practitioner, no matter what their method, is trying to get the patient to accept ideas which will change their behavior.⁶ Essential to the success of hypnotism is a shift in the subjects belief system so that they believe they truly can control mind over body in ways previously thought impossible or can lose control of events previously controlled automatically.

During hypnosis subjects tend to display deep physical and mental relaxation; full regular breathing; a decrease in tension, anxiety, fear or concern for impression management and a strong tendency to block out distractions. In some cases patients experience spontaneous amnesia for some portions of the hypnotic procedure without any suggestion to do so. Highly hypnotizable subjects who have received training in achieving deep levels of hypnosis are able to alter their senses of reality and control in remarkable ways.⁴

The pain threshold varies tremendously from person to person. Some individuals dread and anticipate pain to such a degree that the moment they are touched they translate this into a sensation of pain. This person is often found in the dental office and is the type of patient in whom the

combination of hypnosis and local analgesia is most effective. For the patient who is terrified by the very thought of coming to the dental office and postpones their visit as long as possible (usually coming to see the dentist only when in pain) hypnosis can be an invaluable method of dealing with them as they can be taught to relax physically and this in itself greatly reduces and relieves mental tension. If anesthetic is required, the patient will remain calm and take it without difficulty so that much less of the anesthetic agent is likely to be needed.²

Variations in Susceptibility

Variations in susceptibility to hypnosis are discovered during the first formal attempt to hypnotize the subject. Few personality or social factors have been found to relate to hypnotizability. Josephine Hilgard's (1970) clinical research with hypnotic subjects found that the curious, adventuresome, imaginative person is more hypnotizable than the competitive, controlled, fearful one.⁴

The percentage of normal adults showing the various levels of hypnosis are as follows:

- 5% refractory cases (they don't seem able to go into a trance)
- 95% light trance
- 55% medium trance
- 20% deep trance

These percentages are affected by chronological age, mental age, motivation, and abnormal conditions.^{5,6}

Levels of Hypnosis

The depth of hypnosis is judged by the difficulty of suggestion which the patient will accept and is directly related to the degree of suppression of the conscious mind that is attained. Slight suppression will result in light hypnosis only. Complete suppression will result in deep hypnosis or somnambulism. The more the conscious mind is suppressed, the more the suggestibility of the individual will be increased.²

The categories of levels of hypnosis are as follows:

- **HYPNOIDAL:** The lightest trance response in which the patient is fully relaxed, the eyelids are closed and

fluttering. Rapport is established. Such patients sometimes declare that they had not responded.³

- **LIGHT TRANCE:** The patient is in a state of relaxation in which their eyes are closed and muscle activity is slowed. The practitioner can perform simple posthypnotic suggestions where a suggestion is given during the hypnotic trance and is carried out after the termination of the hypnotic state (eg. "you will floss your teeth each evening before going to bed"). The largest number of patients achieve this state in which tense, anxious patients are relaxed enough to receive required treatment. Even this level of trance, at which suggestions can be quite potent and effective, constitutes one of the most valuable and widely appreciable uses of hypnosis in dentistry.

- **MEDIUM TRANCE:** All of the above can be obtained in this state more easily and completely. Varying degrees of analgesia (eg. glove anesthesia where analgesia of the hand to the wrist is obtained so that a touch of the hand will feel as though through a heavy leather glove), can also be produced. Partial amnesia can be achieved where certain items are blocked temporarily from the patients memory as well as catalepsy (a state of muscular rigidity) of the entire skeletal musculature. Also, some control of fainting, bleeding and saliva flow can be attained as can the control of gagging during the taking of impressions.^{2,5}
- **DEEP OR SOMNAMBULISTIC TRANCE:** The patient can open their eyes without awakening and amnesia for the period in the dental chair is present without suggestion.³

Induction

Induction of hypnosis can be achieved by a variety of techniques that have in common conveying to subjects that they should relax, concentrate, give free run to their imagination, voluntarily agree to let mind and body behave involuntarily, and allow temporal spatial, physical and causal relations to be distorted and dissociated, if necessary, and be responsive to suggestions of the hypnotist.

Since anxiety is assumed to be a major cause of inability to approach positive goals and of fixation on negative ones, the patient is taught to prevent anxiety arousal by relaxing.⁴

In attempting to induce hypnosis, the main problem is to get the conscious mind out of the way so as to make use of the increased degree of suggestibility that will inevitably follow. Successful induction requires a complete fixation of attention. The moment you fix your attention intently upon something, your field of consciousness becomes narrowed and your unconscious mind becomes accessible. Suggestions then slip past the conscious mind and enter the unconscious, where they are accepted and acted upon without criticism.

Conditions essential to successful induction of the hypnotic state are motivation, removal of doubts and fears, fixation of attention, limitation of the field of consciousness, relaxation and limitation of voluntary movements, monotony, and suppression of all ideas except those upon which attention is to be concentrated. Most failures to induce hypnosis are due to a lack of adequate discussion before induction is attempted and a lack of adequate preparation of the subject.

There are many techniques used for induction. Some of the more successful ones used in dentistry include:

- eye-fixation-distraction method
- Wolberg's hand levitation
- "Dropped Coin" technique
- picture visualization (children)
- Chiasson's method
- two-finger method (children)
- talking or relaxing method^{2,5}

Sequence of Events During Hypnotic Session

The hypnotist begins a session by helping the subject to relax. the subject is usually asked to fix their gaze on a particular place or point and then respond to the hypnotist. Once the subject is relaxed, the hypnotist can test for suggestibility or susceptibility.

A typical outline of procedures in the dental use of hypnosis is as follows:

- **MINDSET:** To develop a state of positive expectancy in the patient leading to rapport and acceptance of the trance state.

- **TESTS FOR SUSCEPTIBILITY:**

Methods for checking the patients ability to accept suggestions in the waking state.

- **INDUCTION OF TRANCE:** All techniques aim at fixating the attention of the patient with a request of some kind, so that their sensory intake is limited while their motor activity is held at a minimum. Repeated suggestions given in a monotone for relaxation, heaviness, and sleep then become effective in the responsive patient.

- **DEEPENING TRANCE:** The patient is asked to follow instructions and is given suggestions which, when agreeable to their subconscious mind result in a deeper trance state.

- **SUGGESTIONS APPLICABLE TO DENTAL NEEDS:** These are presented according to individual patient requirements and always include deep relaxation and comfort in the dental chair.

- **NECESSARY DENTAL WORK IS THEN PERFORMED**

- **POSTHYPNOTIC SUGGESTIONS:** These are given for the well being of the patient for post-operative comfort and future response.

- **SIGNAL TO AWAKEN:** The patient is informed of the gesture or spoken words that the practitioner will use to terminate the trance response and arouse them to an alert state.

- **PATIENT AROUSED:** The signal is given unhurriedly along with other appropriate suggestions, while allowing for complete return to normal wakefulness.

- **PATIENT DISMISSED FROM CHAIR:** Only when the patient has fully awakened feeling normal in every respect are they dismissed from the dental chair.³

Problems and Possible Dangers of Hypnosis

The problems associated with the dental use of hypnosis are relatively minor. All practitioners are required to receive special training conducted by a recognized body in clinical hypnosis and need to practice hypnosis often enough to maintain capability with it. In many cases a medical examination is advisable for the patient to determine that any problems are not systemic in nature. It is also very important for practitioners to screen patients to avoid

the few likely to present psychological problems that they may be unequipped to handle. The most common problem that a dental practitioner may have to face is the patient seeking non-dental applications of hypnosis such as weight control or antismoking suggestions.⁶

The perceived dangers of hypnosis have been exaggerated in some areas although they do exist, especially when it is used improperly or carelessly.⁷ Some of the psychological problems that can result from the carelessness on the part of the hypnotist can usually be prevented by the use of proper technique. These would include delayed effects of post hypnotic or uncanceled hypnotic suggestion, misunderstanding by the subject of the suggestions made, and the rare difficulties encountered in the termination of hypnosis.

Some reactions (eg, headache, confusion or anxiety) begin during hypnosis and either terminate with it or persist for a while after the session. The chief short-term aftereffects reported have been drowsiness and confusion. It has been suggested that these may be regarded as a continuation of the hypnotic state rather than a reaction to it. It is similar to the experience of many people who require a period of readjustment after waking up in the morning. The headaches have been interpreted as representing a conflict between the desire to be hypnotized and anxiety concerning the experience or a desire to avoid it.

While the evidence appears overwhelmingly that hypnosis per se is a safe procedure that carries little risk to the subject, there are reported and documented cases of adverse neurotic problems resulting from ill-advised or foolish suggestions that have been made. Usually such suggestions are made by either lay hypnotists or persons with no psychological training, practicing outside the limits of their professional competence.⁶ Hypnosis should not be abused by the dental profession. It should be used judiciously which like anesthesia and drugs are adjuncts that belong in the dental armamentarium.⁷

Conclusion

The greatest value of hypnosis lies in its ability to produce both mental and physical relaxation and to rid the patient of fear and anxiety prior to any treatment. The reduction of fear-tension-anxiety syndrome is extremely useful to the dental team for in lieu of the patient becoming frightened, over-anxious and demoralized, they can be rendered calm, co-operative and much less apprehensive of what lies ahead.

Hypnosis is simply a natural psychological phenomenon which is neither helpful or harmful in itself. It is a technique which may be useful as a supplement in the implementation of treatment on a patient. As Kline (1977) pointed out, you don't treat a patient with hypnosis, you treat them under hypnosis.⁶ ■

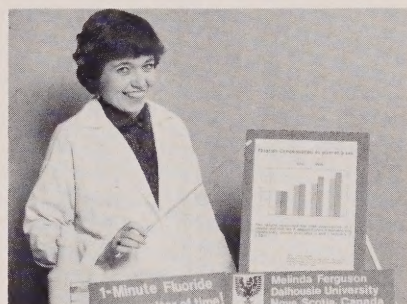
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IT'S ALL A MATTER OF TIME 1-MINUTE FLUORIDE

Melinda Ferguson
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Presented by 1988 Dalhousie hygiene graduate, Melinda Ferguson, and winner of first prize at the Northeast Regional S.A.D.H.A. conference in Boston, April 1988.



results in a less permanently bound fluoride. (4) To date there is still some dispute between various academic

APPENDIX A²

Relationship Between Enamel Fluoride Uptake and Time Application

(fluoride concentration in parts per million at 2.5 microns)

	1 Minute Product	4 Minute Product
Control	2415	2178
1 minute	5514	6450
2 minute	6159	7239
4 minute	10019	10975

Enamel fluoride uptake after 4 minutes was significantly greater than both 2 and 1-minute applications for both products.

Wei, et al, Prince Philip Dental Hospital, University of Hong Kong, March 1987

One-minute fluoride has gained popularity in the U.S. and has recently been introduced into the Canadian market. Makers of one minute products claim they have equal or greater efficiency in the first minute than the traditional fluorides did in four. Rapid acceptance by clinicians is due partly to increased patient acceptance; both gagging and discomfort are decreased, as is systemic fluoride ingestion. Valuable chair time is also saved using this new product.

Proponents of the one-minute products state that the increased uptake is due to the increased acidity of the gel; however, comparisons have shown that the pH of "regular" APFs are of equal acidity or lower. (1)

Brand	pH
Canprofluor-1	3.1
Minute Gel	3.5
("4 minute" APFs)	3.0-3.4) (2)

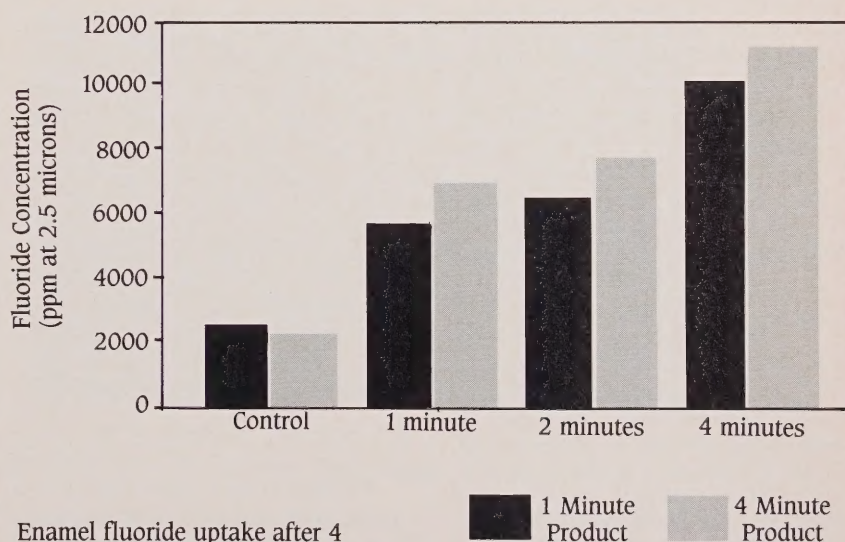
Makers of one-minute products have claimed more fluoride uptake in one minute than other APF gels in four minutes. Wei et. al. '87 and Wood '85 have shown in separate studies that there is no significant difference in uptake between products at each time increment (refer to Table/bar graph - Appendix A1, A2). Initial uptake of fluoride, regardless of product, is rapid. Subsequent uptake is reduced with the majority of the uptake occurring in the

first four minutes. A more recent in vivo study by Wei et.al. confirmed the time dependence of fluoride uptake after four minutes as being significantly greater (3) (refer to graph - Appendix B).

The instantaneous uptake occurring in the first minute is most likely due to the surface absorption process which

APPENDIX A¹

Relationship Between Enamel Fluoride Uptake and Time Application



Enamel fluoride uptake after 4 minutes was significantly greater than both 2 and 1-minute applications for both products.

Wei, et al, Prince Philip Dental Hospital, University of Hong Kong, March 1987

schools as to the benefit of this loosely adherent fluoride. (5,6) This calcium fluoride is less stable than the more permanently bound fluorapatite which is formed by way of diffusion. With both the one and four minute products, the initial fluoride uptake is quickly lost under oral conditions resulting in a lower amount of fluoride which is permanently bound to the enamel. (7)

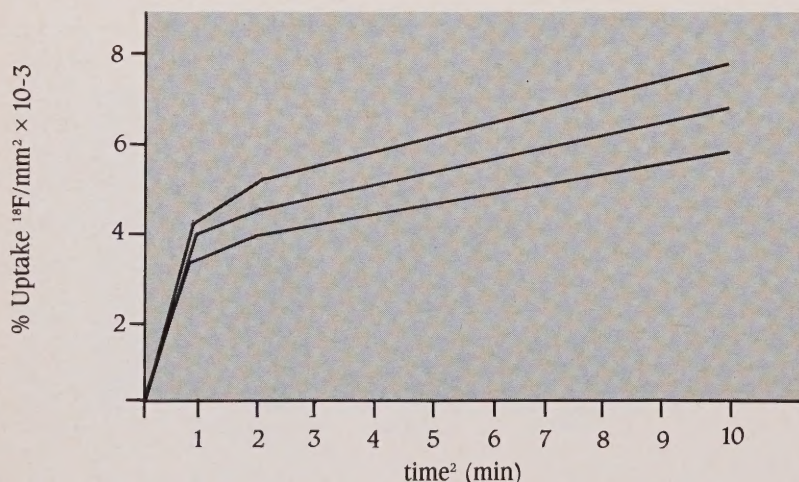
It is not just this permanently bound fluoride in the surface layer of the enamel that is important. The ability to remineralize decalcified surfaces and the depth of fluoride penetration into the enamel directly affects clinical efficiency. The longer the enamel is treated, the more fluoride is deposited totally in the enamel protecting the deeper layers. At the same time, for both products, calcium fluoride leeches out, becoming available to remineralize areas of demineralization. (8)

Studies examining time and fluoride are few and far between. Most of the studies that have been done on one-minute fluorides are lab studies and to date, little clinical research is available. In the Department of Oral Health Research at Indiana University, Stookey and Schemhorn have found that in most instances the chemical composition of one and four minute fluorides, put out by any one company, fail to differ. (9) While not all companies are marketing two "different" products, they are making the claim that their fluoride uptake is

unsurpassed at one minute or the recommended four minute treatment, suggesting perhaps one minute is sufficient when in fact, there is not sufficient evidence yet to support such a claim.

Collins and others, who edited *A Handbook for Dental Hygienist* in 1986, stated that there is "no particular basis for applying APF gels for four minutes. This time appears to have persisted since the initial recommendations of Bibby in 1942 in relation to sodium fluoride". They did recognize that the greater uptake of fluoride occurs at the beginning of the application and that it gradually trails off with time. With this in mind, the hygienist should not be discouraged from applying fluoride for shorter periods of time if the patient is restless or unable to cope with full application-time. A one minute application is certainly superior to the absence of fluoride treatment. At present, it appears that most four-minute products have a comparable uptake in the first minute to the one minute products, so it would not be necessary to have a different product on hand for such instances. Until clinical research is done to sufficiently endorse the one-minute products, the clinician should continue to use the "regular" four-minute application for optimal (and proven) results. ■

Appendix B



Uptake of $^{18}\text{F}/\text{mm}^2$ of enamel from APF as a function of the square root of exposure time. The graph shows three samples (1,2,3) exposed to solution of APF. A linear

relationship between ^{18}F uptake and t^2 suggests that the mechanism of uptake is diffusion controlled.

Joyston-Bechal, et al. *Archives of Oral Biology*, Vol 18 p. 1080, figure 2.

End Notes

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DENTAL HYGIENE STUDENTS ARE DIFFERENT TYPES

A STUDY OF FIRST YEAR STUDENTS

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Abstract

The Myers-Briggs Type Indicator (MBTI) was used to understand personality preferences of a sample of first year students over a 3 year period (1985, 1986, 1987) at the University of Manitoba School of Dental Hygiene. The MBTI yields four preference scores - extraversion/introversion (E-I), sensing/intuition (S-N), thinking/feeling (T-F), and judging/perception (J-P). Combinations of these four preferences yield 16 different personality types. Results indicated that the highest ranked types were ISFJ (23.6%) and ESFJ (18.1%). Temperament type results indicated that the SJ type (51.4%) was predominant. Educational implications of type differences for dental hygiene educators are suggested.

Introduction

It is well known among dental hygiene educators that different personalities, different values, different stressors, and different learning styles exist among their students. It is also well known, especially by experience, that one teaching approach seems to work well with one student and completely fails to reach another. There is a way of understanding dental hygiene students that can help dental hygiene educators understand the interplay between student personalities and learning styles, and instructor personalities and teaching styles. This involves understanding student personality preferences using the Myers-Briggs Type Indicator (MBTI).¹ The MBTI has been very useful in identifying and explaining differences, and has been used widely in teaching and education to determine personality preferences, and explain behaviors, values and learning styles.

The MBTI is based on Jungian theory which states that "much seemingly chance variation in human behavior is not due to chance; it is in fact the logical result of a few basic, observable differences in mental functioning".² "The merit of the theory underlying the MBTI is that it enables us to expect specific differences in specific people and to cope with the people and their differences more constructively than we otherwise could".¹ The value of using this indicator with dental hygiene students is that in this highly specialized profession, it is easy to assume that dental hygiene students are, or should be, the same and hence instructors should teach as if they have an homogenous group. Furthermore, it is easy to believe that students learn by whichever way their instructors prefer to teach. Yet, as Myers states,

"We cannot safely assume that other people's minds work on the same principles as our own. All too often, others with whom we come in contact do not reason as we reason, or do not value the things we value, or are not interested in what interests us."²

Differences in people stem from the way they prefer to use their minds. Specifically, these are the ways they perceive and the ways they make judgements. Perception involves the many ways of becoming aware of people, things, happenings, or ideas. Judgement includes all the ways of coming to conclusions about what has been perceived. It includes choice, evaluation, and decision making. Myers states that,

"together, perception and judgement, which make up a large portion of people's total mental activity, govern much of their outer behavior, because perception - by definition - determines what people see in a situation and their judgement determines what they decide to do about it."²

These preferences are inborn and their development occurs through a lifelong process.

The MBTI contains four separate indices. Each index reflects one of four basic preferences which, under Jung's theory, direct the use of perception and judgement. The four indices are: Extraversion/Introversion (E-I), Sensing/Intuition (S-N), Thinking/Feeling (T-F), and Judgement/Perception (J-P). Extraversion (E) is indicated when a person is energized by the external world of people and things, while introversion (I) applies when a person is energized by the internal world of thoughts and ideas. Sensing (S) people collect practical, factual data through the five senses, whereas intuitive (N) people collect theoretical information through intuition by seeing possibilities and

making hunches. Thinking (T) refers to making decisions based on objective analysis, by weighing cause and effect. Feeling (F) refers to decisions based on subjective values, and how harmony of human relationships will be affected. If a person prefers to use the judging (J) function when dealing with the external world, they will tend to prefer schedules, structure, planning and closure. Those using the perceiving (P) function with the external world, prefer to be flexible, open-ended, adaptable and spontaneous.³

These four indices are designed to point in one direction or the other which reflect Jung's principle of opposites.⁴ According to Myers and McCaulley,

"the intent is to reflect a habitual choice between rival alternatives, analogous to right-handedness or left-handedness. One expects to use both the right and left hands, even though one reaches first with the hand one prefers. Similarly, every person is assumed to use both poles of each of the four preferences, but to respond first or most often with the one preferred."¹

The MBTI, therefore, is designed to sort people into groups rather than to measure them.⁵

Sixteen possible combinations, called "types", denoted by the four letters of the preferences (eg. ENFP, ISTJ), can be generated from the four indices. The theory assumes that all types are valuable and necessary, and that each type has its own gifts, strengths, vulnerability, and path of development.¹ Individuals can, therefore, be described and understood, in part, by stating their four preferences, such as ENTP.

Research in the United States with the MBTI on dental hygiene students has indicated that the predominant types are ISFJ and ESFJ.⁶ Other frequently reported types among the American sample are ESTJ, ESFP and ENFP.⁶ McCaulley believes that the health fields need all the types and that no one is the "right type".⁶ The differences that the various types bring are valuable and necessary.

The common thread in most of the dental hygiene students types reported in McCaulley's literature is SJ.⁶ SJ, SP, NF and NT are known as temperament types.³ Keirsey and Bates believe that combining the perception and judge-

ment preferences this way leads to greater understanding and facilitation with Jung's concepts.³

Understanding temperament types and relating them to the predominant type found in McCaulley's study on dental hygiene students, teaches the reader that SJ (sensing/judging) types have a product orientation. They value carefulness, caution, thoroughness, and accuracy. They tend to be rigid about schedules, concerned about responsibility, and find it very important to feel a sense of belonging.⁷

The NF (intuitive-feeling) type, also in McCaulley's sample, is very concerned about self-expression and knowing one's true identity. They tend to be interested in and sensitive to people, and are willing to give them all the time they need.⁷ SP's (sensing-perceptive) were less frequently reported in McCaulley's study. This type tends to be spontaneous and free, desiring to do as he/she wishes, when he/she wishes. SP's tend to work well in crises.⁷ NT's (intuitive-thinking) were barely representative of McCaulley's dental hygiene sample. They are concerned about attaining more and more knowledge in order to be more competent. They can be perfectionists, for they impose stringent standards of performance on themselves. They tend to use time precisely, and proportion it fairly to others.⁷

This study will identify and explain the Myers-Briggs types in a three year sample of first year students at the University of Manitoba School of Dental Hygiene. The differences in the students' preferred learning styles, values, and stressors will be described based on their temperament types. And finally, suggestions for dental hygiene educators will be presented on the basis of the results of the various temperament types.

Method

Early in each of the 1985, 1986, 1987 school years, first year dental hygiene students at the University of Manitoba School of Dental Hygiene voluntarily agreed to complete the Myers-Briggs Type Indicator. They also completed a short questionnaire of academic history to be used to describe the sample.

The MBTI is a forced-choice, nonpathological, self-report instrument containing 166 items (on Form G). The construction of the MBTI was governed

by a working hypothesis which states "that certain valuable differences in normal people result from the preferred ways of using perception and judgement".¹ Each of these preferences, according to the theory, is a choice between opposites, and is, therefore, an either-or dichotomy. Each dichotomy, based on the four indices, produces two categories of people. "An individual will belong to one or the other category based on his or her makeup and inclinations".¹ The purpose of the MBTI is, therefore, to determine, as correctly as possible, the four categories to which a respondent naturally belongs, eg. ENFP or ISFJ.

The Indicator's internal consistency reliabilities range from 0.73 to 0.92, and the test-retest reliability coefficients range from 0.48 to 0.87 (7 weeks).¹ According to DeVito, validity correlations are moderately high and statistically significant,⁵ for example, the introversion correlations range from 0.40 to 0.75, and the intuition correlations range from 0.40 to 0.62.¹ Generally, reviews of Jung's theory and the MBTI have been quite favourable.^{4,5}

Results

In total, 78 students were registered as first year Dental Hygiene students in the three years from 1985 to 1987. Of these, 72 (92%) participated in the study. The majority (68%) were under the age of 25 years, with the age range being 17-40 years. Their academic backgrounds upon entry into the School of Dental Hygiene included 27 with completed high school only, 34 with some college or university experience, and 11 with completed university degrees in predominantly Arts or Science.

A type table of the Myers-Briggs scores of this sample, is shown in Table 1. The most frequently reported types were ISFJ (n=17, 23.6%) and ESFJ (n=13, 18.1%). Forty-two percent (n=30, 41.6%) of the sample were represented by these two types. Fewer students scored as INFP (n=8, 11.1%); ESFP (n=6, 8.3%); ISFP, ESTJ, ENFP (n=4, 5.5% each); ISTJ, ESTP, ENFJ (n=3, 4.2% each); ISTP, INFJ (n=2, 2.8% each); INTJ, ENTP, ENTJ (n=1, 1.4% each). There were no students scoring INTP.

In looking at single preference scores, Table 2, the sample was not clearly E (n=35, 48.6%) nor I (n=37, 51.4%), it was more S (=52, 72.2%) than N (n=20, 27.8%), more F (=57, 79.2%) than T (=15, 20.8%), and more J (=44, 61.1%) than P (=28, 38.9%). The mix of F with SJ (=30), versus T with SJ (=7) results in greater numbers of ISFJ's (=17) and ESFJ's (=13) than any other full type score in the sample.

Discussion

The most frequently reported types in this sample of first year University of Manitoba School of Dental Hygiene students are ISFJ and ESFJ. ISFJ's are very hard working, precise and thorough. They enjoy being of service to others and this tends to lead them into the health care professions. With their highly-cultivated sensing, they neglect no symptoms and are able draw on an accurate memory.² The warmth and reassurance they crave is supplied through their contacts with patients.² They are highly dependable and prefer working in situations with established procedures.²

Like the ISFJ's, ESFJ's are also drawn to the health careers, however, these types are extremely outgoing and sociable. They may not always care too much what kind of work they do, just so long as they are able to talk while they work in a friendly atmosphere.² Not only do they provide devoted care, but they also provide comfort and warmth. Of all the types, ESFJ's adapt best to routine.²

Other types exist to a lesser degree in this sample. For an understanding of these types, the reader is referred to Isabel Briggs Myers' book, *Gifts Differing*.²

The results for the full sample indicate that there was no strong preference for I (an inner orientation) over E (an outer orientation), but there were preferences for S (collecting factual data) over N (collecting theoretical data through intuition), F (subjective decision making) over T (objective decision making), and J (structure and planfulness) over P (openness).

Temperament type scores indicate that the sample is predominantly SJ (sensing-judging), followed by NF (intuitive-feeling), SP (sensing-

perceptive), and NT (intuitive-thinking). SJ's are the structured, organized and accurate types, whereas NF's are the sensitive, in-search-of-self types. SP's are the unstructured, action-oriented doers, while NT's are the theoretical thinkers and analyzers.³ It is understandable that more SJ types would be drawn to dental hygiene and dental hygiene school than many of the NF, SP, or NT types, because of the methodical and practical nature of the work.

Table 1
Myers-Briggs Types of the University of Manitoba
First Year School of Dental Hygiene Students
1985 - 1987
(n=72)

	Sensing Styles		Intuitive Styles	
	With Thinking	With Feeling	With Feeling	With Thinking
Introverts				
Judging styles	ISTJ n=3 4.2%	ISFJ n=17 23.6%	INFJ n=2 2.8%	INTJ n=1 1.4%
Perceptive styles	ISTP n=2 2.8%	ISFP n=4 5.5%	INFP n=8 11.1%	INTP n=0 0%
Extraverts				
Perceptive styles	ESTP n=3 4.2%	ESFP n=6 8.3%	ENFP n=4 5.5%	ENTP n=1 1.4%
Judging styles	ESTJ n=4 5.5%	ESFJ n=13 18.1%	ENFJ n=3 4.2%	ENTJ n=1 1.4%

Table 2
University of Manitoba
First Year School of
Dental Hygiene Students
Single Preference Scores

	Total Sample (n=72)
E	35 (48.6%)
I	37 (51.4%)
S	52 (72.2%)
N	20 (27.8%)
T	15 (20.8%)
F	57 (79.2%)
J	44 (61.1%)
P	28 (38.9%)

Temperament type scores, Table 3, indicated that the SJ type was most representative of the full sample (n=37, 51.4%, followed by NF (n=17, 23.6%), SP (n=15, 20.8%) and NT (n=3, 4.2%).

Table 3
University of Manitoba
First Year School of Dental
Hygiene Students
Temperament Type Scores

	Total Sample (n=72)
SJ	37 (51.4%)
SP	15 (20.8%)
NF	17 (23.6%)
NT	3 (4.2%)

Differences in Myers-Briggs types account for different preferences in dental hygiene students' learning styles, values and stressors. The predominant temperament type in this sample is SJ (sensing-judging). SJ types generally prefer and need organization and schedules for learning. They expect the teacher to rule and teach, while the student is to follow and learn.⁷ They value harmony, belonging and responsibility.² SJ's tend to be impatient with complications and tend to worry over anticipated problems.² They experience stress when they feel rejected or pressured, or when they are criticized, especially negatively.⁷

Just less than one quarter of the sample are the NF (intuitive-feeling) temperament type. NF's are very different from SJ's and so have different preferences for learning. NF's learn best in face-to-face dialogue.⁷ They enjoy group interaction, and prefer to focus more on people than on the abstract.⁷ They need acceptance, support and caring for learning to occur.⁷ NF's value people and the pursuit of self-knowledge.² They are usually naturally empathic, and tend to be verbally fluent.² They may create problems for themselves by becoming over-involved or over-extended.⁷ At times, they may tend to neglect rules and have difficulties with authorities.⁷ NF's are likely to be stressed when they experience loss of identity, or if they feel restless or fragmented.⁷

One fifth of the students in this sample are the SP (sensing-perceptive) temperament type. These free-spirited, resourceful students must be understood as well. They are very involved and spontaneous, and tend to thrive on verbal and visual learning.⁷ They may well be restless in the traditional classroom.⁷ They value freedom and spontaneity, and tend to work well in crisis situations.² They are flexible and pragmatic.² SP's are not always dependable and they are often impatient with abstractions.⁷ If they feel constrained or bored, stress results.⁷

Very few students in the sample were NT (intuitive-thinking) temperament type. For those NT's who are in dental hygiene programs, it is important to understand that they are unlike the majority who are SJ. NT's are interested in principles and logic, and enjoy developing their own ideas.² They tend

to impose constantly escalating standards on themselves and others.² They value truth and knowledge, and are generally thorough thinkers and problem solvers.² Stress results from feeling incompetent, or not knowing or doing things well.⁷

Suggestions for Dental Hygiene Educators

Based on the results of this study, it is suggested that:

1. Dental hygiene educators recognize that differences do exist among their students. The easiest way to see differences is in terms of temperament type. While the SJ type is predominant in this sample, there are also students with NF, NT, and SP temperament types in their classrooms.
2. In order to understand the differences among their students, dental hygiene educators could attempt to estimate each student's temperament type based on the concepts outlined in this paper. It should be possible for educators to make these estimates because they have many opportunities to get to know their students through the close contact they have with them over the two year study period, and because temperament type concepts are fairly straightforward and easily recognizable once the concepts are learned.
3. Dental hygiene educators should attempt to understand how the four temperament types prefer to learn (as outlined in the Discussion section of this paper), and associate each of their students' types with each of their preferred learning styles.
4. Dental hygiene educators should recognize that they themselves have a temperament type, and that they can get an idea of their own temperament type based on the concepts outlined in this paper. Readers interested in writing the MBTI for themselves are referred to the short version of the MBTI in Keirsey and Bates' *Please Understand Me*³ or to a counsellor or therapist qualified to administer the full version of the MBTI.
5. Dental hygiene educators should attempt to understand how the four temperament types prefer to teach, and associate their temperament type with their preferred teaching style as follows:

SJ types prefer to teach by the Socratic method.⁷ They like to present material in sequence and well outlined. SJ's are not patient with the disruptive student, and they can be critical of the student who seems tardy, disorganized, or slow.⁷ They expect lessons to be done on time and students to be loyal to their work and institution.⁷

SP types tend to be spontaneous in the classroom.⁷ They prefer to do the unexpected, and are apt to use drama, visual aids, and entertaining or attractive approaches.⁷ There are not many of these types in formal education, perhaps because they can be easily misunderstood by their students and colleagues.⁷ SP's tend to follow impulses rather than well-laid plans.⁷

NF types prefer interactional experiences to lecturing. They are usually in touch with the climate of the classroom, and tend to relate individually to each student.⁷ NF's prefer small groups rather than large groups, and tend to be highly committed to their students, using stroking and encouragement generously.⁷

NT types prefer to teach knowledge rather than values and attitudes.⁷ They are apt to be well read in their field, and tend to enjoy designing new curriculum.⁷ They aim to stretch students' intellects, and do not often express appreciation.⁷ NT's often sound harsh and impatient, and expect competency in their students.⁷

6. Dental hygiene educators should attempt to balance their preferred teaching style with their students' preferred learning styles. While it is not possible to "please all of the people all of the time", the following approaches may be considered.

- a) In large group settings, such as classroom work, dental hygiene educators could vary their teaching activities so as to accommodate the four learning styles. For example, well-organized and clearly presented lectures would suit the SJ's. Opportunities to develop individual ideas based on logic and principles would suit NT's. NF's would appreciate some small group dialogue, and SP's would enjoy visual learning such as video tapes or demonstrations.

Classroom work which incorporates all of these approaches would attend to all students' preferred learning styles, even though students would also have to learn in ways they do not prefer. In order for individual instructors to use four different teaching approaches, they would have to be open to developing the three other teaching styles, rather than just using their own preferred style. In essence, both teachers and students would have to attempt to function outside of their preferred style.

b) When instructing individuals, such as in the clinics and labs, dental hygiene educators should rely on their knowledge of the individual student's temperament type, and hence, his/her preferred learning style. For example, if a student is an SJ, he/she would prefer to have straight-forward and clear feedback about their work. Vague or conflicting suggestions about how they should do a procedure would be frustrating for SJ's. NF's would generally feel most comfortable in face-to-face dialogue with the instructor about their work. They would need to feel that they have the instructor's support and acceptance. NT's would want to know why they must do a particular procedure and how it should be done best. Being told to do something without an explanation is frustrating for NT's. SP's would prefer to be shown how to do a procedure but then be given the freedom to do it their own way and at their own pace. Because of their desire for freedom, SP's likely experience the greatest frustration in dental hygiene school where such freedom is not often possible.

As in large group work, when instructing individuals, dental hygiene educators would have to be open to using a variety of approaches other than their preferred teaching style. Students as well would have to learn from instructors in ways other than their preferred learning style.

In summary, type differences exist among the University of Manitoba School of Dental Hygiene students. If dental hygiene educators learn to appreciate these differences, as well as their own temperament types, then an understanding of their students' preferred learning styles in relation to their own preferred teaching styles would be possible. With this understanding, and with a willingness to try to balance all these differences, improvements in dental hygiene education may be realized. ■

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C.D.H.A. FINANCIAL STATEMENTS

Mary Ellen Morris
CHARTERED ACCOUNTANT
204 HWY
MANOTICK, ONTARIO
K0A 1H0
TEL 882-3923

AUDITOR'S REPORT -

To the members of
Canadian Dental Hygienists' Association
L'Association Canadienne des Hygienistes Dentaires

I have examined the balance sheet as at April 30, 1988 and the
statement of income and expenses for the year then ended.

My examination was made in accordance with generally accepted
auditing standards, and accordingly included such tests and other
procedures as I considered necessary in the circumstances, except
as outlined in the following paragraph.

As is the case with most organizations which receive funds by
membership fees and contributions, verification of income was
limited to accounting for amounts as recorded. Financial results
of projects and committee activities are reported upon completion
only and thus are not available for audit until the year in which
they are completed.

In my opinion, except for the effect of any adjustments which might
have been required had I been able to satisfy myself with respect
to the income described in the preceding paragraph of these financial
statements present fairly the financial position of the Association
at April 30, 1988 and the results of its operations for the year
then ended in accordance with generally accepted accounting
principles applied, on a basis consistent with the preceding year.

Mary Ellen Morris
CHARTERED ACCOUNTANT

Manotick, Ontario
June 8, 1988

CANADIAN DENTAL HYGIENISTS' ASSOCIATION L'ASSOCIATION CANADIENNE DES HYGIENISTES DENTAIRES

BALANCE SHEET

As at April 30, 1988

(with comparative amounts as at April 30, 1987)

ASSETS	1988	1987
CURRENT		
Cash	\$ 133,901	\$ 92,156
Treasury bills - at cost (Note 2)	52,892	100,375
Accounts receivable	19,709	10,437
Advances	5,000	1,500
	<u>\$211,502</u>	<u>\$204,472</u>

LIABILITIES AND MEMBERS' EQUITY

CURRENT		
Accounts payable and accrued liabilities	\$ 18,275	\$ 44,405
Deferred annual membership dues	93,624	70,088
	<u>\$111,969</u>	<u>\$114,493</u>
MEMBERS' EQUITY		
Balance, beginning of year	\$ 89,984	\$124,643
Less: Net income (loss) for the year	<u>9,558</u>	<u>(11,622)</u>
Balance, end of year	<u>\$211,511</u>	<u>\$204,477</u>

CANADIAN DENTAL HYGIENISTS' ASSOCIATION L'ASSOCIATION CANADIENNE DES HYGIENISTES DENTAIRES

STATEMENT OF INCOME AND EXPENSES

For the year ended April 30, 1988
(with comparative amounts for the year ended April 30, 1987)

INCOME	1988	1987
National portion of membership fees	\$164,684	\$145,194
Provincial cost sharing	7,352	19,003
Interest	10,454	14,602
Fees - corporate mailings		
Insurance administration fee	7,905	2,912
Convention profit	5,189	4,250
Posters	-	2,784
Repayment - convention advance	-	1,285
Probe magazine	-	2,162
Grants	42,019	36,781
Miscellaneous	5,644	1,600
	<u>1,224</u>	<u>994</u>
	<u>\$244,671</u>	<u>\$231,567</u>

CANADIAN DENTAL HYGIENISTS' ASSOCIATION L'ASSOCIATION CANADIENNE DES HYGIENISTES DENTAIRES

NOTES TO FINANCIAL STATEMENTS

APRIL 30, 1988

1. SIGNIFICANT ACCOUNTING POLICIES

a) The Association follows generally accepted accounting principles in the preparation of its financial statements except as outlined below where the disclosed basis of accounting is considered to be appropriate.

b) Fixed Assets

Office equipment and furniture are expensed entirely in the year of purchase.

c) Projects and Committees

Committees receiving funds for specific projects will be subject to audit at the completion of the project. Funds allocated to these committees are reflected in expenses in the year the funds are advanced.

2. TREASURY BILLS

The Treasury bills in the amount of \$52,892 are made up as follows:

Purchase date	Cost	Maturity date	Interest Rate	Value at Maturity
April 24, 1988	\$52,892	July 29, 1988	8.40%	\$54,000

3. COMMITMENTS

The Association operated in 1987/88 from leased premises under the terms of a 4 year lease ending December 28th, 1988. The Association is committed to make rental payments of \$3600 per year plus a proportionate share of operating costs. The Association has signed a 3 year lease for new premises that commences July 1, 1988. The lease payments are \$8,340 for the first year, \$8,974 for the second year, and \$9,549 for the third year. The Association also rents office equipment and is committed to make the following rental payments:

CANADIAN DENTAL HYGIENISTS' ASSOCIATION L'ASSOCIATION CANADIENNE DES HYGIENISTES DENTAIRES

NOTES TO FINANCIAL STATEMENTS

APRIL 30, 1988

3. COMMITMENTS (continued)

Photocopier 63 month lease ending April 30, 1991 at a cost of \$1746 per year
Mailing equipment 60 month lease ending February 28, 1991 at a cost of \$2060 per year

4. CONTINGENT LIABILITY

a) On September 1, 1985 the Association entered into an agreement with the Ministry of National Health and Welfare to conduct a project entitled "Oral Health Resources for the Elderly". The project was completed during the year but at the date of these statements the project had not been audited by the Ministry or an independent auditor.

The Ministry funded this project to the maximum of \$95,000 during the two year period ended December 31, 1987. Although the project was carried out under the auspices of the Association the funds were administered independently of the Association's general operations. The Association representative responsible for the project reported directly to the Ministry.

If it were determined by the Ministry that any of the funds advanced had not been spent in accordance with the terms and conditions of the agreement the Association could be liable for reimbursement of these amounts from their general operating funds.

b) At the year end the staff of the Association had accumulated unpaid overtime to a total value calculated at their regular pay rates of \$3990. Policy and practice is that this overtime will be settled in time off. However, should an employee leave the Association prior to realization of their full overtime entitlement the Association could be liable for payment in cash.

CANADIAN DENTAL HYGIENISTS' ASSOCIATION L'ASSOCIATION CANADIENNE DES HYGIENISTES DENTAIRES

STATEMENT OF INCOME AND EXPENSES

For the year ended April 30, 1988
(with comparative amounts for the year ended April 30, 1987)

	1988	1987
INCOME - forward	\$ 51,017	\$ 52,933
	<u>15,517</u>	<u>17,938</u>
	<u>\$244,671</u>	<u>\$231,567</u>
EXPENSES		
Salaries and benefits	10,510	7,580
Membership campaign and processing	8,943	6,466
Central office administration	3,212	4,535
Printing and photocopy	3,600	3,700
Postage	7,467	7,077
Office equipment and supplies	2,240	2,350
Rent	1,240	1,43
Telephone	1,524	678
Professional fees	9,528	23,450
Insurance	19,198	27,228
Miscellaneous	179	1,537
Travel	12,775	22,790
Annual general meeting of the board	25,000	12,505
Convention	1,802	1,500
Committees	1,500	1,500
National Survey	40,218	48,228
Donations	<u>232,111</u>	<u>218,228</u>
Honoraria	<u>9,558</u>	<u>31,459</u>
Probe magazine		
NET INCOME (LOSS) FOR THE YEAR		

SELF ASSESSMENT TEST HIV TRANSMISSION

- | | | T | F |
|----|---|--------------------------|--------------------------|
| 1 | Wearing plastic gloves and carefully disposing of body fluids will prevent infection with the AIDS virus. | ☐ | ☐ |
| 2 | In cleaning up blood or vomit from a person with AIDS, a solution of chlorine bleach and water is adequate to kill the virus. | ☐ | ☐ |
| 3 | A person can transmit the AIDS virus even when there are no symptoms of the disease. | ☐ | ☐ |
| 4 | Persons with a positive AIDS test can transmit the virus to others. | ☐ | ☐ |
| 5 | A plastic mask (mouthpiece) should be used as a protection against AIDS when performing mouth-to-mouth resuscitation. | ☐ | ☐ |
| 6 | Being HIV positive is the same as having AIDS. | ☐ | ☐ |
| 7 | The AIDS test result may be negative even though the person has been infected with the AIDS virus. | ☐ | ☐ |
| 8 | Mosquitoes can transmit AIDS. | ☐ | ☐ |
| 9 | The AIDS test checks to see if the AIDS antibody is present in the blood sample. | ☐ | ☐ |
| 10 | The AIDS virus can be transmitted through the tears and saliva of someone who is infected. | ☐ | ☐ |

Submitted by
Glenda Butt, RDH, BA, MEd.
Marilyn Kinnear, RDH
School of Dental Hygiene
Dalhousie University
Halifax, Nova Scotia

SELF ASSESSMENT TEST ANSWERS HIV TRANSMISSION

1

Wearing plastic gloves and carefully disposing of body fluids will prevent infection with the AIDS (HI) virus. TRUE

If you are giving personal care to someone who has AIDS and come in contact with the infected person's blood, urine or other bodily fluids, there may be a very slight risk. To prevent the virus from entering your bloodstream through cuts or sores on your hands, wear plastic, disposable gloves and wash your hands thoroughly when handling the bodily fluids of AIDS patients.

2

In cleaning up blood or vomit from a person with AIDS, a solution of chlorine bleach and water is adequate to kill the virus. TRUE

A solution of one part chlorine bleach (Javex) to nine parts water applied to a surface on which infected materials has been spilled has been shown to kill the virus. Wear gloves and allow the area to dry for 20 minutes. While these precautions are recommended, it should be noted that no cases of AIDS have ever been linked with exposure to urine, saliva, vomit or feces. The body secretions linked with AIDS are blood and semen. Cleaning anything that has

been contaminated with blood using rubbing alcohol or a bleach solution will also protect against Hepatitis B and other blood-borne infections - including AIDS.

3

A person can transmit the AIDS virus (HIV) even when there are no symptoms of the disease. TRUE

This is one of the most important features of the disease. If the virus is present in the body, whether or not there are symptoms, it can be passed and infect another by the exchange of body fluids.

4

Persons with a positive AIDS test (HIV) can transmit the virus to others. TRUE

A positive HIV antibody test indicates that the virus is or has been in the body - there is no readily available way to identify the virus itself. We must therefore assume that all persons with a positive test can transmit the virus.

At present we do not have the technology to determine which person is carrying the virus or which person is merely antibody positive. So, a positive test that shows you have HIV antibodies in your blood:

- DOES NOT necessarily mean you have AIDS or an AIDS-related illness;

- DOES NOT necessarily mean that you will go on to develop AIDS;
- DOES NOT mean that you are protected against AIDS in the future.

A positive test that shows you have HI virus antibodies in your blood DOES mean:

- you probably have the HI virus in your blood and other body fluids;
- you must assume that you are able to pass the virus on to others through sexual contact or through your blood;
- you need to take precautions.

5

A plastic mask (mouthpiece) should be used when performing mouth-to-mouth resuscitation as a precaution against AIDS TRUE

No transmission of the HI virus (or even of the more easily transmitted Hepatitis B virus) during mouth-to-mouth resuscitation (or CPR) has ever been documented. Although very small quantities of HIV have been found in saliva, there have been no cases of virus infection transmitted through saliva. Emergency workers who regularly give mouth-to-mouth resuscitation or CPR to victims may protect themselves from a variety of diseases by using a specially designed mouthpiece. However, the risk of infection is so slight that no one should hesitate to give emergency mouth-to-mouth resuscitation without a mouthpiece. The chance that you can help someone outweighs any chance of contracting the virus.

6

Being HIV positive is the same as having AIDS. FALSE

HIV is the Human Immunodeficiency Virus which is present in AIDS but is also found in the stages leading up to AIDS.

HIV positive – when a person has been in contact with the HI virus and has produced antibodies. The person does not necessarily have AIDS. All persons with AIDS are HIV positive but not all HIV-positive people have AIDS.

HIV carrier is the same as a person who is HIV positive.

AIDS carrier is used synonymously, although incorrectly, to describe someone who is HIV positive. This term should not be used. HIV positive is the more appropriate term since the person may not actually have AIDS.

7

The AIDS test result may be negative even though the person has been infected with the AIDS (HI) virus. TRUE

Because there can be a delay of three to six months before the body reacts to the HI virus with antibody production, a HI test (antibody test) can be negative even though the virus is in the body. It may be three to six months from the time of exposure to the virus before the test becomes positive for the antibody.

8

Mosquitoes can transmit AIDS. FALSE

The HI virus can only be transmitted from human to human.

9

The AIDS test checks for the AIDS antibody in the blood sample. TRUE

The AIDS (HIV) antibody is produced by the body in response to an invasion by the HI virus – it shows that the virus is or has been in the body. The AIDS test does not detect the virus itself. If HIV antibodies are found in a person's blood, it doesn't necessarily mean that the person has AIDS or will go on to develop AIDS. Nor does it mean the person is immune to AIDS. (Usually antibodies protect a person from a disease, but this is not the case with the HI virus antibodies.)

If antibodies are found, it simply means that, at some time in the past, the virus has entered the person's bloodstream. It is currently estimated that 40 per cent of people who have the antibodies will develop AIDS. Some people have the HIV antibody in their bloodstreams for a number of years and never develop symptoms of AIDS. Others develop AIDS after the virus has been present in the blood for a few months. Still others take several years to develop AIDS. Tests are available that can identify HIV antibodies in the blood. The blood screening process involves the use of an ELISA (enzyme-linked immunosorbent assay) screening test. If the results are positive on two of these tests, a more sensitive and specific antibody test known as the Western Blot is conducted.

All studies indicate that these tests are highly effective in identifying blood infected with HIV. In fact, the ELISA test errs on the side of "false-positive" readings, since only about 10 per cent of blood that tests positive on the initial ELISA test is confirmed positive through the Western Blot. An antibody test is not called "positive" until the test is repeated and confirmed.

10

The three body fluids that most commonly have been shown to transmit AIDS virus are blood, semen and vaginal secretions. FALSE

The HI virus is in highly concentrated amounts in blood, blood products and semen. It is in a lesser concentration in vaginal fluid but some researchers think in sufficient concentration to be transmitted. The HIV has also been found in trace amounts in tears, saliva and sweat, but there has never been a case documented to have been caused by these alone. The virus is in insufficient concentration in these body fluids.

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Walters, D. (1987). A.I.D.S.: What Every Responsible Canadian Should Know. Toronto: Toronto Sun Publishing Corporation. Centers for Disease Control (1988). Update

*Produced with the permission of:
Professor Lesley Barnes
Dalhousie AIDS Education Committee*

THE QUESTION OF QUALITY CONTROL

H. Catherine Thom
Dip. Dent. Hyg., M.A.

I was most interested in two of the articles in the June 1988 issue of *Probe* namely the comment "Not a Fairy Tale" by Mother Goose and the editorial "Portability - Our Own 'Free Trade'" by Fran Cotton. What struck me as interesting was the fact that in essence both articles addressed the issue of quality control of preventive dental services through the skills assessment of the practitioners providing those services.

The focus of such a quality control mechanism has been, and continues to be, clinical examination of practitioners to insure that they are in fact competent to practise their profession. While I strongly support the principle of quality control and consequent protection of the consumer of dental services this may not be the most effective way of achieving the desired result for a variety of reasons.

One reason that the current clinical examinations will not ultimately solve the quality assurance issue is the groups of practitioners to which they are applied. Under current regulations regarding dental hygiene practice in Canada only two categories of hygienists are required to demonstrate their competence to the licensing authorities: new graduates (as in the province of Ontario); and licensed hygienists changing jurisdictions (conditions vary depending on the jurisdictions involved).

In examining both of these populations it is quite possible that we have "the emphasis on the wrong syllable". In the case of the new graduates they have undergone, on a regular basis, the most detailed scrutiny of their skills that they will probably endure in their careers unless serious restructuring of our

quality control mechanism occurs. The case of transfer of licensed personnel is not quite as straightforward in that they represent a much more heterogeneous population.

The most frightening aspect of the current system is the fact that, once licensed, a hygienist is essentially exempt from further formal evaluation of professional competence provided that annual fees are submitted to the licensing body. In many jurisdictions there are *no requirements for mandatory continuing education or peer review* as a prerequisite for licensure renewal.

Can we honestly risk making the assumption that all licensed dental hygienists will accept the total responsibility for their own continuing education? Can we truly assure the public we serve that they are getting optimal care from all licensed members of our profession?

With the cyclical patterns of employment typical of a female dominated profession it is all too easy to maintain one's license and drop in and out of the work force with perhaps less updating of knowledge and skills than would be desirable in a more perfect world. However there are a number of options regarding the quality control issue that would insure a more perfect world as far as level of preventive dental services are concerned.

Firstly it is redundant and unnecessary to reexamine new graduates of *accredited* dental hygiene programs. Highly skilled and knowledgeable professionals, your peers, have already gone over the programs and the graduates with the proverbial "fine tooth comb".

Anyone who has been connected with an accreditation survey conducted by the Canadian Dental Association cannot help but be impressed with the

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level of expertise displayed by team members and the thoroughness of their approach to the task at hand. Not content with an already adequate system, the CDA is currently involved in establishing more useful and stringent guidelines for the accreditation of dental hygiene programs. I believe that the dental hygiene profession should be cooperating with and encouraging this effort as being the most viable route for licensing bodies to recognise the competence of new or recent graduates regardless of jurisdiction of practice.

The problems facing assessment of skills of practitioners changing jurisdictions who are graduates of nonaccredited institutions or of hygienists continuing to practise in the same jurisdiction are not quite as easy to resolve. However, it again seems logical to use the resources of the educational network through the accredited programs to develop an assessment mechanism to address these issues. Doing so would provide mutual benefit to both professional bodies and the educational institutions.

In order to determine the suitability of all hygienists to practise, both their theoretical knowledge base and their clinical expertise should be assessed on a regular basis. It is not difficult to devise written examinations which will assess the required theoretical knowledge base accurately and reliably. Clinical assessment is rather more difficult.

One of the greatest single problems with the clinical licensure examination in its current form is the fact that it is a "snap shot" indication of capability. As we are all aware, some days we are more photogenic than others! What provides a more accurate assessment of capability is repeated observation of performance on a number of different occasions on a variety of tasks. Here again the accredited programs are in an excellent position to design updating/assessment models to evaluate the theoretical knowledge and clinical skills of hygienists from nonaccredited institutions as well as those who are due for skills reassessment.

To create this system requires a number of fundamental changes in practise regulations, most importantly, the requirement of mandatory continuing education as a condition of licensure renewal. Secondly, it would require

similar qualifications from hygienists changing jurisdictions. In such cases hygienists could either prove that they had the necessary update/assessment clearance from an accredited institution in their own jurisdiction, or, could avail themselves of the opportunity in the jurisdiction to which they are applying for licensure. Since reassessment of all dental hygienists would be mandatory according to a specific time interval such update/assessment programs would, of necessity, be widely available.

These changes then insure that a consistent control mechanism regulates the quality of practice of *all* dental hygienists rather than a political minority. Such a system has obvious benefits for the consumer. It will benefit the educational system as well in that it will guarantee sufficient enrollment in continuing education courses to insure that they will run.

In the past there have been requests from the community for updating in various aspects of dental hygiene. Often excellent programs have been developed only to be cancelled due to insufficient enrollment. When this occurs the public, the profession and the school are all losers.

The quality control issue is one with which all dental hygiene jurisdictions should be seriously concerned. It is particularly critical in those provinces where self-government is, or is about to be, a fact of life. If we are to take control of our own destiny, we must be prepared to accept the responsibility of doing our own housekeeping so that opportunities for practitioners to provide substandard services are kept to the absolute minimum. When educational institutions, accrediting bodies and licensure organizations work together their unique contributions and shared expertise can make quality assurance a reality not just a philosophy. ■

ANTI-PLAQUE **Viadent**[®]



Sanguinaria Extract
Anti-Plaque/Anti-Gingivitis Preparations

INDICATIONS: Adjunctive treatment for the maintenance of good oral hygiene, control of dental plaque and the reduction and inhibition of gingivitis.

CONTRAINDICATIONS: Other than hypersensitivity to Viadent or one of its components, there are no contraindications to the use of this product.

PRECAUTIONS: It is possible that Viadent Anti-Plaque preparations may interact chemically with other orally applied drugs, although no such drug interactions have been reported to date. Routine swallowing of the product is not recommended.

Staining of dental restorations does not appear to be a problem with Viadent preparations. In laboratory testing with the rinse, only one light-cured composite, Durafil-Kulzer, was slightly yellowed after immersion in the rinse for 24 hours.

Use of Viadent Anti-Plaque preparations is not recommended in pediatric oral health programs due to the alcohol content in the rinse and for the toothpaste, when caries is the principal dental disease and for which a fluoride product is indicated.

The safe use of Viadent Anti-Plaque preparations during human pregnancy and lactation has not been established. As with any drug, use during pregnancy or lactation requires that the expected therapeutic benefit of the drug be considered against the unknown risks to the mother, foetus or neonate.

DOSAGE AND ADMINISTRATION: Viadent Anti-Plaque Oral Rinse: Administer after brushing morning and evening. Rinse twice consecutively using 15 mL per rinse for 15 seconds each time.

Viadent Anti-Plaque Toothpaste: Administer as a ribbon of paste on a toothbrush morning and evening.

SUPPLIED: Viadent Anti-Plaque Oral Rinse: Bottles of 500 mL.
Viadent Anti-Plaque Toothpaste: Tubes of 50 mL, 100 mL.

Aux-Dent Personnel Services

A new service for placement of dental staff in the Barrie - Collingwood - Huntsville area. Run by a practicing hygienist with 22 years in the dental field. Please call (collect):

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Hygienist Required

Full or part-time, for busy preventive oriented general practice in south west Calgary, Alberta close to the beautiful Rocky Mountains!

Please respond to: Dr. Len Zybutz
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or call collect (403) 255-1591

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Established dental practise with two dentists, requires a Dental Hygienist for permanent full-time or part-time position. Apply in writing, and in confidence to: York Professional Services Ltd, 422 York St., FREDERICTON, NEW BRUNSWICK E3B 3P7

L'ASSOCIATION DENTAIRE CANADIENNE

recherche
un directeur adjoint de l'Éducation
et de l'Agrément

FONCTIONS: Se charger de responsabilités d'ordre administratif.
Superviser les équipes d'agrément chargées de revoir les programmes de formation en hygiène dentaire ou soins dentaire.
Corriger ou réviser les rapports des enquêtes d'agrément.

COMPÉTENCES: Connaître les membres qui composent l'équipe dentaire et les rapports entre les diverses professions dentaires.
Avoir de l'expérience ou des connaissances touchant la formation des praticiens dentaires ou des auxiliaires dentaires et l'agrément des programmes de formation.
Avoir d'excellentes aptitudes pour communiquer oralement ou par écrit.
Avoir de l'expérience en administration ou des aptitudes pour organiser.
Bilinguisme: être capable de communiquer oralement ou par écrit en français et en anglais.
Être disposé à voyager beaucoup et souvent au Canada.

SALAIRE: Suivant les compétences et l'expérience; ce poste intéressera les personnes qui désirent avoir un revenu de 30.000 \$ et plus.

ENTRÉE EN FONCTION: Négociable, la date visée étant le 1^{er} mars 1989.

VEUILLEZ FAIRE PARVENIR TOUTE DEMANDE (30 DÉCEMBRE 1988) À:

Brian Henderson, directeur
Éducation et Agrément
Association dentaire canadienne
1815, promenade Alta Vista
Ottawa, Ontario K1G 3Y6

THE CANADIAN DENTAL ASSOCIATION

requires:
an Associate Director, Education and Accreditation

DUTIES:

- Designated administrative responsibilities.
- Supervision of Accreditation Survey Teams reviewing educational programs preparing Dental auxiliaries.
- Editing of associated survey reports.

QUALIFICATIONS:

- Familiarity with the oral health care team and inter-professional relations.
- Experience in and/or knowledge of dental or dental auxiliary education and accreditation.
- Excellent oral and written communication skills.
- Administrative experience and/or organizational skills.
- Bilingualism: ability to communicate orally and in writing in English and French.
- Willingness to travel extensively and frequently within Canada.

SALARY:

- Commensurate with qualifications and experience; the position will be of interest to those with income in the \$30,000+ range.

STARTING DATE:

- Negotiable in relation to a target date of March 1, 1989.

PLEASE SUBMIT APPLICATIONS (DECEMBER 30, 1988) TO:

Brian Henderson, Director
Education and Accreditation
Canadian Dental Association
1815 Alta Vista Drive
OTTAWA, ONT. K1G 3Y6

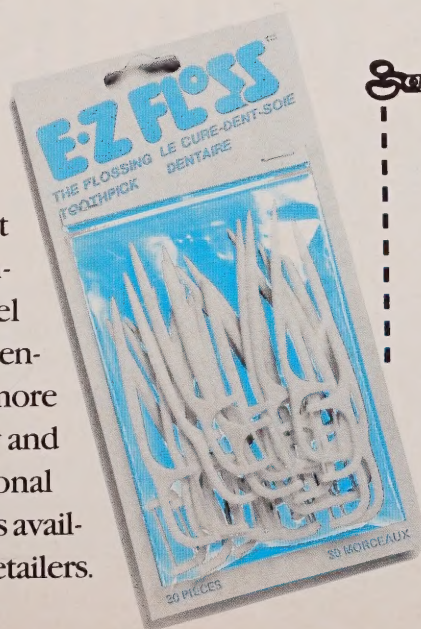
Easy...



(Approx. twice actual size.)

Introducing E-Z FLOSS

E-Z Floss makes flossing easy. Plain and simple. E-Z Floss is an ideal supplement to any patient's flossing routine. Easy to use, it can travel with people on the go, help encourage children to floss more often, and assist the elderly and infirm who find conventional flossing difficult. E-Z Floss is available at most major drug retailers.



SAVE \$12.00

Complete this coupon below and mail with \$13.00 (cheque or money order) to:
E-Z Floss, P.O. Box 86801, North Vancouver, B.C. V7L 4L3
and you will receive 500 individually wrapped E-Z Floss patient samples. A regular \$25.00 value.

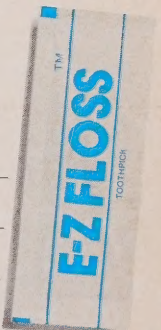
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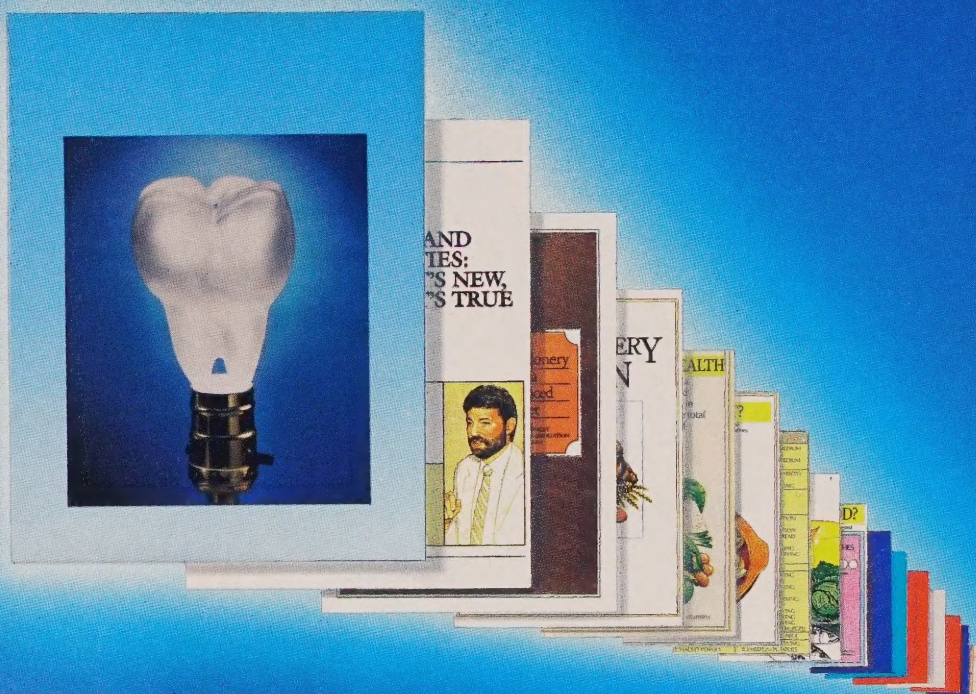
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Name of Employer _____ Offer limited to one per hygienist.





A decade of studies sheds new light on caries.

During the last decade, many studies have shown that the relative cariogenicity of foods is not related simply to carbohydrate content.^{1,2}



IN 1981, TESTS CARRIED OUT BY BIBBY³ SHOWED THE SPEED AT WHICH A FOOD OR DRINK CLEARS FROM THE MOUTH ASSOCIATED WITH ITS POTENTIAL CARIOGENICITY.

Contrary to previous opinion, stickier foods such as caramels and chocolates tended to clear from the mouth faster than foods not generally associated with stickiness such as bread and crackers.

This may be because milk chocolate and caramel contain soluble sugars which can be washed away more rapidly by saliva compared to bread which will not disperse easily and will adhere longer to the teeth.

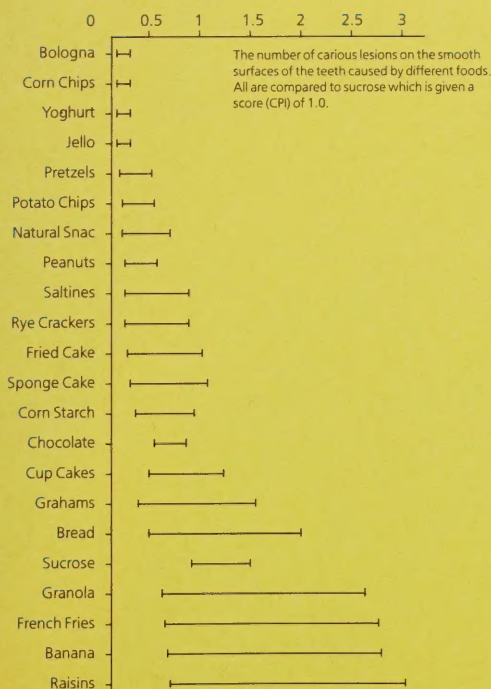
Amount of
carbohydrates
retained at three
intervals

Food	5 min	15 min	30 min
White bread	16.1 mg	10.0 mg	3.6 mg
Sponge cake	18.8	6.0	4.2
Chocolate milk	7.4	3.8	1.9
Raisins	16.8	5.7	3.0
Potato chips	12.3	4.9	2.5
Caramel	19.0	4.2	2.5
Cracker			
(oil sprayed)	23.8	8.5	3.7
Milk chocolate	19.0	6.8	3.0
Sugared soft			
drink	6.3	2.4	2.1
Hard mint	31.9	9.4	2.5
Cracker (plain)	33.6	10.4	3.3

Showing amount of carbohydrate remaining in the mouth after an average portion has been eaten.¹⁰

IN 1985, MUNDORFF ET AL⁴ EVALUATED THE CARIES POTENTIAL OF A VARIETY OF FOODS. The results showed that confections were no more cariogenic than foods previously considered "safer for your teeth" such as wheat flakes and raisins.

Caries Potential Index CPI



Mundorff et al/cariogenicity study.



IN 1986, A STUDY ON "ORAL FOOD CLEARANCE AND THE pH OF PLAQUE AND SALIVA"⁵ concluded that "Foods with higher content of sugar were removed more rapidly and depressed the pH of the plaque for a shorter period of time than did starchy foods containing less sugar".



CONFECTIONS IN A NEW LIGHT.... MOST FOODS CONTAIN FERMENTABLE CARBOHYDRATES AND ARE A POTENTIAL CAUSE OF TOOTH DECAY. While confections are no exception, they are simply no better or worse than any other such foods. Advances in caries prevention through flourides and improved oral hygiene continue to reduce the likelihood of dental caries. Confections, consumed within the confines of a well balanced diet and regular dental care need not be discouraged. For additional information, write to the Confectionery Manufacturers Association of Canada.

REFERENCES:

1. Brown A.T. The role of dietary carbohydrates in plaque formation and oral disease. The Nutrition Foundation Inc. Washington D.C. 1976: 488-9,498
2. Bibby B. G. Diet and nutrition and dental caries. J. Can. Dent. Assoc. 1980; 46:47
3. Bibby B. G. (1981). Foods and dental caries. Food, Nutrition and Dental Health, 1:257-278
4. Mundorff, S.A. et al. Cariogenicity of Foods. Paper presented to the 1985 IADR/AADR annual meeting, March 1985.
5. Bibby B. G., Mundorff S.A., Zero D.T., Almekinder K.J., Oral food clearance and the pH of plaque and saliva, J.A.D.A., Vol 112, March 1986 333-337

Confectionery Manufacturers Association of Canada



Get the facts.

Please send copies of current studies on cariogenic dietary considerations.

Name _____

Address _____

Signature _____

Date _____

Mail to: **Confectionery Manufacturers Association of Canada**

Suite 101, 1185 Eglinton Avenue East,
Don Mills, Ontario M3C 3C6

Teacher

Curious about teaching? We may have a full-time/part-time opening that suits you. We're looking for a Dental Professional to help train our Dental Assisting Students. If you're intrigued:

WRITE:

TEACHER
Newfoundland Career Academy
P.O. Box 8627, Station A
St. John's, NF
A1B 3T1

Vancouver Island

Established group practice located in new clinic in Mall requires a second hygienist, full or part-time in a prevention oriented practice in NANAIMO, B.C. Please call collect: Dr. L.M. TESSARI or Dr. K. DODD 604-758-1168 or 758-2413

"Are you a team player? Bright and energetic? We are in need of a dental hygienist two days a week to join our dynamic group. Excellent benefits and incentive program. For more information please call Kelowna, B.C. (604) 768-7671 or write: Dr.'s Hart and Anderson, Box 428 Westbank, B.C. VOH 2A0."

Modern Dental Office requires Dental Hygienist for temporary relief position. Please call collect or write to Dr. A. J. Bender, 604-736-8578
1511 W 15th Ave.
Vancouver, B.C.
V6J 2K5

Thinking of Relocating?

We are located in the beautiful Fraser Valley one hour away from Vancouver and at the gateway to B.C.'s interior. We are looking for a hygienist with excellent people skills to head up our preventive care team.

Please reply to:
9064 Young St.,
Chilliwack, B.C.
V2P 4R6

British Columbia

Ready for a change of scenery? If you've been considering a move to the west, now's the time to inquire further. Your skills are in demand! While living the glorious westcoast lifestyle, enjoy above-average salaries and some of the best career opportunities available in Canada.

For full information write: the Registrar, Dept. A, College of Dental Surgeons of B.C., 1125 W. 8th Ave., Vancouver, B.C. V6H 3N4. No board exams required if graduated from an accredited school within last five years.

DENTAL HYGIENIST

A periodontal practice in the seaside community of West Vancouver needs you.

Are you interested in excellence, teamwork and the latest modalities of treatment?

Full time (4 days preferred).

Please phone Bernice or Dr. Chesko

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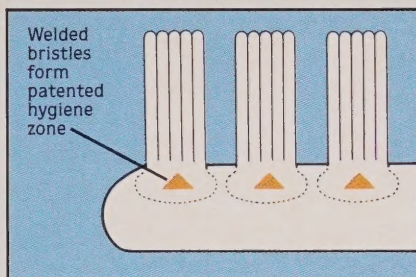
Canadian Dental Hygienists' Association
Classified Advertising
1018 Merivale Road
Suite 201
Ottawa, Ont.
K1Z 6A5

Now, Milupa's patented hygiene zone makes kids' brushing an even healthier habit.

Milupa children's toothbrushes are more hygienic and easier to use.

It's hard to clean a child's teeth properly if the toothbrush isn't clean – so we designed Milupa toothbrushes with an exclusive, patented hygiene zone. Only Milupa toothbrushes have nylon bristles welded directly to the brush head, so there are no drilled holes where bacteria can breed.

Milupa toothbrushes cover every angle in brushing. The



small, flat head of the toothbrush is rounded, for efficient cleaning. The ends of the bristles are also rounded, and they are densely grouped to completely clean surfaces, reach between teeth, and

massage gums.

For babies and toddlers under two, try the Milupa baby toothbrush – specially designed with a long handle that is comfortable for the parent to guide. For kids two years and over, the Milupa children's toothbrush has a solid, compact handle which is easy for the child to grip.

milupa® toothbrushes
Healthy brushing that's easy for kids



Save 44%!

I want to see my little patients get a good start in brushing. Please send me:*

- _____ dozen Milupa baby toothbrushes, individually blister packed for hygiene (\$19.08/dozen)
_____ dozen Milupa children's toothbrushes, individually blister packed for hygiene (\$19.08/dozen)

Important Ontario residents add 8% sales tax

Complete coupon and mail with cheque or money order to Milupa Company, P.O. Box 370, Station "R", Toronto, Ontario M4G 4C3

Name _____

Address _____

City _____

Province _____ Postal Code _____

Offer limited to one coupon per hygienist

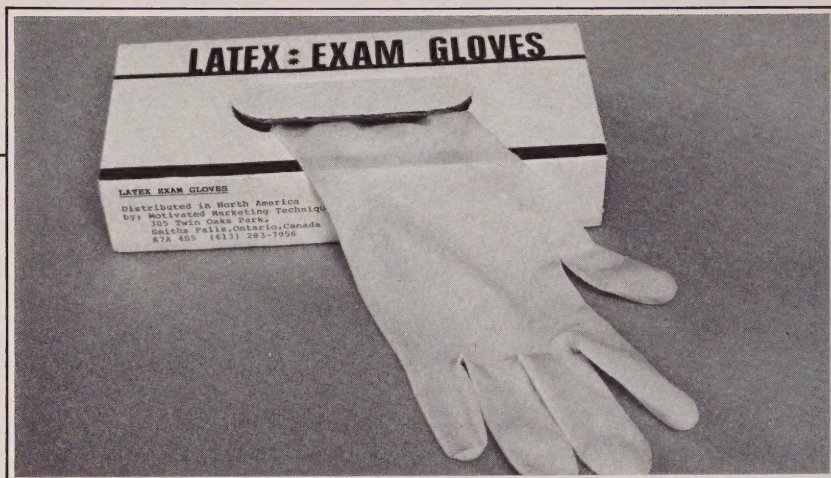
*Toothbrushes must be ordered by dozen. Add \$2.00 postage and handling.

NEW PRODUCTS

Whitby, Ontario, April 12, 1988 -

With latex gloves a key weapon in the battle against the spread of infection, Smith & Nephew Inc. today announced the opening of a multi-million dollar plant that will significantly alleviate a critical shortage of supply in the Canadian market. By augmenting production of Perry latex gloves by a factor of four over the existing facility in Ajax, Ontario, the new plant will enhance Smith & Nephew's leadership role in the Canadian health care industry.

Gloves made of latex are lightweight, thin, and durable, allowing the wearer to perform complex manual tasks with a minimum of interference. Long used primarily in a medical context for surgical and examination purposes, latex gloves are now in demand by a much wider and rapidly growing range of medical and dental personnel.



For further information, please contact:

Alan Neil, Product Manager,
2100, 52 Avenue
Lachine, Quebec
Canada H8T 2Y5
Telephone: (514) 636-0772
FAX: (514) 636-1684

For those of you who "Just can't handle it anymore", our new Latex Examination Gloves provide the protection and peace of Mind you and your Customers have come to expect. Choice of S, M, or L sizes, featuring; Beaded-Cuff, Corn Starch Lubrication (inside). All Gloves meet ASTM 2982. For more information contact Motivated Marketing Techniques, 305 Twin Oak Park, Smiths Falls, Ontario, K7A 4S5. (613) 283-7056.

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"Facts about dental hygienists"

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Prices include postage and handling.

Please allow 4 weeks for delivery.

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Suite 201
Ottawa, Ontario
K1Z 6A5

Butler

TAKES THE EXTRA CARE

Only Butler® Tapers, Satinizes and Rounds* Toothbrush Bristles For Effective Plaque Removal†



Take a close look — you be the judge!

Unretouched microphotographs of leading toothbrushes show that while some have rounded bristles, none is tapered and satinized like Butler.

Bristle Design Is Important

With any toothbrush it's the bristles that actually remove the plaque.

So the single most important feature of a toothbrush is the effectiveness of its bristles. That's why, in 1967, we originated a process that gave us a bristle designed specifically to remove plaque.

We taper each bristle for extra flexibility without compromising its strength, and at the same time reduce the diameter of the tip. This permits it to reach deeper into the sulcus and interproximally, while the body of the bristle provides the strength needed to displace the plaque. Then the tip is rounded, making it gentle to soft tissue — less likely to cause trauma and bleeding. Finally, we actually texturize the bristle with a process called satinizing. Unlike a smooth, polished bristle that slides through plaque, the satinized bristle picks up and removes plaque better and carries it away.

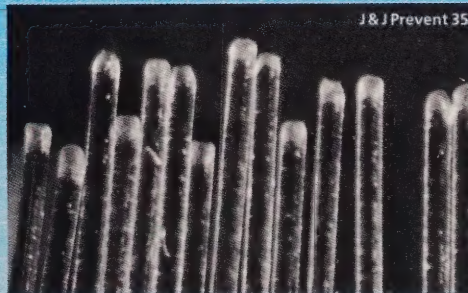
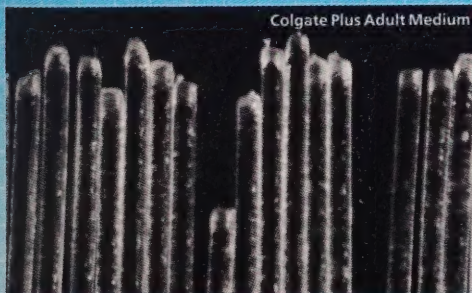
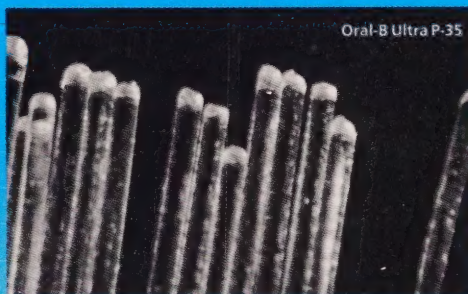
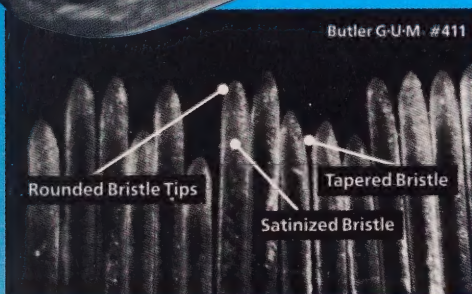
Special Features Make Butler G-U-M® Toothbrushes Unique

Butler G-U-M® brushes also feature a narrow, rounded head for comfortable access to posteriors and wide, lever-grip handle for easy manipulation in the dental arch.

Studies Prove It Effective in Controlling Gingivitis

Recent studies conducted at the University of Michigan, USA and the University of Berne, Switzerland indicate that the Butler G-U-M® #411 toothbrush actually reduces Gingivitis. The scientific community recognizes that the control of Gingivitis is the most useful approach in preventing the development of periodontitis!

Write for complete catalog and prices.



Only Butler provides all three bristle processes for more effective plaque removal. It's because we take this extra care that a Butler toothbrush is a more effective brush for your patients.

*C. Mark Gilson, DDS, MS; Gerald T. Charbeneau, DDS, MS; and H. Charles Hill, DDS. All members of the faculty of the University of Michigan School of Dentistry — A comparison of physical properties of several soft toothbrushes.

†Dr. Harald Löe, Director, National Institute of Dental Research — Principles of aetiology and pathogenesis governing the treatment of periodontal disease.

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This advertisement has been reviewed for compliance with the advertising standards of the ADA

Butler

John O. Butler Company

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INTRODUCING A SUPERIOR CREST. Improved tartar fight. Easier prophies.

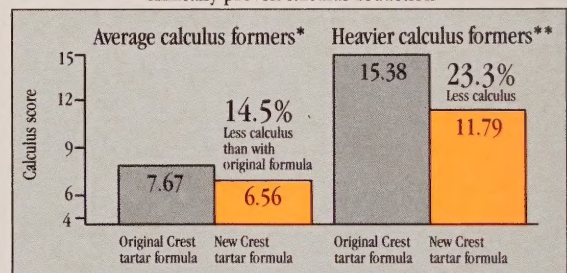
Crest, the innovator of tartar fighting toothpaste, has created a dynamic new tool against supragingival calculus. New Crest now contains 5% soluble pyrophosphate, a 51% active ingredient increase. Not only is unsightly calculus build-up inhibited, but smaller deposits are easier to remove. You spend less time scaling — and your patient is more comfortable.

Clinically proven to provide significantly greater calculus reduction.

Double-blind clinical results under ad lib conditions prove that New Crest fights calculus better than ever before. Across a broad range of calculus formers, New Crest tartar fighter provided 14.5% more calculus reduction than the original Crest tartar formula. Among heavy calculus formers, New Crest provided 23.3% greater calculus reduction.

References: 1. Lu, K.H. et al., J Indiana Dent Assoc, 1988, March-April. 2. Lu, K.H. et al., J Dent Child, 1985, Nov.-Dec., pp. 449-51.

Clinically proven calculus reduction



*Whole mouth V-M Scores ≥ 7 .

**Whole mouth V-M Scores ≥ 12 .

Chart adapted from Lu et al.¹

Mean scores significantly different from one another at $\alpha = 0.05$.

The anticaries protection for which Crest has always been famous.

Crest's great new tartar fighting formula contains the same proven anticaries system as regular Crest. In fact, Crest is the only tartar fighting toothpaste with clinically proven anticaries protection. This was confirmed in a massive clinical study among nearly 1500 school children.²

Recommend Crest's new Tartar Fighter

107



CREST: Tested. Proven. Trusted.



"Crest contains sodium fluoride which is, in our opinion, an effective decay preventive agent, and is of significant value when used in a conscientiously applied program of oral hygiene and regular professional care." CANADIAN DENTAL ASSOCIATION

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